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ABSTRACT

An early education program for migrant children ages three through second grade, the program operates two permanent sites located in Connell and Moses Lake, Washington. A mobile component, operated in La Grulla, Texas during the winter months, follows the migrant children north when their families join the migrant stream from April through October of each year. This evaluation report presents the program's progress during the 1975-76 program year. The objective, need, teaching process or involvement approach, and results are given along with a summary of findings for the following components: instruction, staff development, parent and community involvement, materials development, and management. Overall the program met or partially met its objectives. The appendices include a technical report on the Bilingual Mini Head Start Test of Cultural Concepts and a report on the procedures for testing and data collection and explanatory data on the analysis of test scores in the instructional component. (NQ)

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EVALUATION OF PROGRESS
TRAINING MIGRANT PARAPROFESSIONALS IN BILINGUAL MINI HEAD START

U.S. DEPARTMENT OF HEALTH
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FINAL EVALUATION
1975-76 Program Year
No. 9 in Series

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TRAINING MIGRANT PARAPROFESSIONALS IN BILINGUAL MINI HEAD START

Final Evaluation
Program Year 1975-76
September 1976

This evaluation is the ninth in a series on this program.

The project "Training Migrant Paraprofessionals in Bilingual Mini Head Start" receives its basic operating grant from the Office of Education, Division of Bilingual Education, under Title VII of Public Law 93-380, 93rd Congress, H.R.69, 1974.

It receives additional funding from the State of Washington, under the URRD program, from Washington State Head Start, and from the Texas Migrant Council which receives its operating grant from the Division of Migrant and Indian Programs, Office of Child Development, Head Start. Facility money from Title I-Migrant through the State of Washington has been utilized. The preschool portion of the program is also supported from Title XX, Social Security administered by the Division of Social and Health Services of the State of Washington. Food costs have been in part supported by the U.S. Department of Agriculture. And space and facilities have been made available to the program from the Educational Institute for Rural Families in Washington State and Green Giant.

This is an early education program for children ages three through second grade. It operates in two permanent sites in Washington State at Connell and Moses Lake. It also operates a mobile component which is in La Grulla, Texas during the winter months, and follows migrant children north when their families join the migrant stream from approximately April through October of each year.

The grantee is Educational Service District 104, Ephrata, Washington.

Report prepared by: Beverly McConnell, Evaluator

SUMMARY OF ACHIEVEMENT OF PRODUCT OBJECTIVES

INSTRUCTIONAL COMPONENT	FINDINGS
1. PRESCHOOL CONCEPTS Project children significantly superior at .05 level over project norm group of comparable age after 200+ days attendance.	Goal exceeded
2. SPANISH SPEAKING LEARN SPANISH Project children significantly superior at .05 level over project norm group of comparable age after 200+ days attendance.	Goal exceeded
3. SPANISH SPEAKING LEARN ENGLISH At least 55% of children Spanish dominant at entry to program will gain 10 points on English PPVT after 200 days attendance.	Goal partially met (54%)
4. MATH Project children significantly superior at .05 level over project norm group of comparable age after 200+ days attendance.	Goal exceeded
5. READING Project children significantly superior at .05 level over project norm group of same language dominance and age after 200+ days attendance. (Analysis was Spanish dominant only as English dominant had too few for statistical analysis.)	Goal exceeded
6. HANDWRITING Project children significantly superior at .05 level over project norm group of comparable age after 200+ days attendance. Age 3, 4, 5)	Goal exceeded
7. CULTURAL CONCEPTS Project children significantly superior over comparison group of non-project children of comparable age after 100+ days attendance.	Goal exceeded
8. CONTINUITY GROUP SUPERIOR TO CONTROL GROUP Project continuity group (mobile component) will show superiority in MATH and READING at .05 level of statistical significance, over control group of nonproject mobile migrants.	Goal exceeded
STAFF DEVELOPMENT COMPONENT	
1. AT LEAST 90% OF TEACHERS EMPLOYED 3 MONTHS OR LONGER WILL MASTER IN-SERVICE TRAINING UNITS AT 75% MASTERY LEVEL.	Goal exceeded
2. AT LEAST 80% OF PROJECT FULL-TIME STAFF WILL BE ENROLLED IN GED OR COLLEGE COURSES TO FURTHER THEIR ACADEMIC TRAINING.	Goal exceeded

PARENT AND COMMUNITY INVOLVEMENT COMPONENT	FINDINGS
1. FAMILY PARTICIPATES IN CHILDREN'S EDUCATION Family members equal to one-third enrollment capacity at each center will participate in educational program.	Goal exceeded
2. FAMILIES PARTICIPATE IN PROGRAM MANAGEMENT Parent and community members of advisory groups will be active in program management in four out of five of the following: (a) organizational matters, (b) review of proposals, (c) personnel actions, (d) use of parent funds, (e) discussion of educational program and evaluation.	Goal met or exceeded all sites
3. COMMUNITY MEMBERS CONTRIBUTE PROGRAM SUPPORT Community members equal to one-fourth enrollment capacity at each center will provide volunteer services.	Goal exceeded two sites, partially met one site.
4. PARENTS PARTICIPATE IN PROGRAM EVALUATION At least three to five parents per center will visit program and submit written evaluation of curriculum and teaching methods.	Goal met two sites, not met one site
MATERIALS DEVELOPMENT COMPONENT	
1. TRANSLATION OF SPANISH DISTAR MATERIALS PUBLISHED. (First edition)	Not met because decided to field test 2nd edition
2. SIX NEW UNITS OF TEACHER TRAINING MATERIALS DEVELOPED.	Met. Project now has training in all current academic areas.
3. PUBLISH ACHIEVEMENT TEST FOR HANDWRITING CURRICULUM.	Met. Project now has achievement test in all academic areas.
4. PUBLISH IMPLEMENTATION CHECKLIST FOR PROJECT MONITORING.	Not met
5. PUBLISH TWO TRAINER-TRAINING UNITS.	Partially met. One published, other in development.
6. PUBLISH CULTURAL HERITAGE TEST.	Met. BMHS Test of Cultural Concepts developed and reliability tested.

7.	DISSEMINATION ABOUT PROJECT.	Met. Published[4] extensively and presented at both national and local conferences.

MANAGEMENT COMPONENT

1.	PROJECT WILL FOLLOW CHILDREN AS THEY MOVE Each mobile teacher relocated north will provide continuing service to an average of five children.	Goal exceeded, average of 10 children per teacher
2.	COORDINATION WITH OTHER EDUCATIONAL AGENCIES In each host community (mobile component) project will coordinate with local educational agencies.	Goal met
3.	PROJECT WILL MONITOR FAR-FLUNG OPERATIONS Project manager and evaluator will monitor far flung project operations through weekly mail, phone, or site visit contact.	Goal met
4.	DEVELOPMENT OF COST ANALYSIS DATA Project manager will develop cost analysis data.	Goal met

---

The detailed report of findings on the evaluation objectives summarized above is presented on the pages which follow.

GOAL 1. CHILDREN THREE TO FIVE WILL LEARN PRESCHOOL CONCEPTS.

THE NEED: Project children who enter the program as three-, four-, and five-year-olds are pretested on the Cooperative Preschool Inventory. This is a nationally standardized test widely used to measure the outcome of Head Start programs. It measures concepts usually considered important as school readiness skills: the recognition of colors and shapes, ability to understand and follow directions, number concepts, etc.

Over a five-year period the project has compiled pretest scores for children who started the program at different ages. The average scores of the children the project serves, before program experience, places them in the lower half--almost the lowest third, compared to children tested in the national sample. Three-year-olds ranked at the 34th percentile, four-year-olds ranked 37th percentile, and five-year-olds at the 48th percentile.

THE TEACHING PROCESS: The project combines concept and language learning using the first edition of the DISTAR language materials (published by SRA) in English, and a field test edition in Spanish of the second edition of DISTAR language. Lessons are given in each language, at least 20 minutes a day in Spanish and another 20 minutes a day in English.

These are oral lessons taught to a small group from a teacher presentation book. The lessons involve actions the children perform as well as oral responses, and the picture presentation is supplemented by use of real objects to add meaning, especially for the younger children. In addition, two or three unstructured learning periods (child choice) take place each day, and concept learning activities are used during these periods.

THE RESULTS: Figure 1, shown below, compares the national percentile rank of children age three, four, or five before project experience and after 200 or more days attendance. As noted before, without instruction, children served by the project average scores from the 34th to the 48th percentile compared

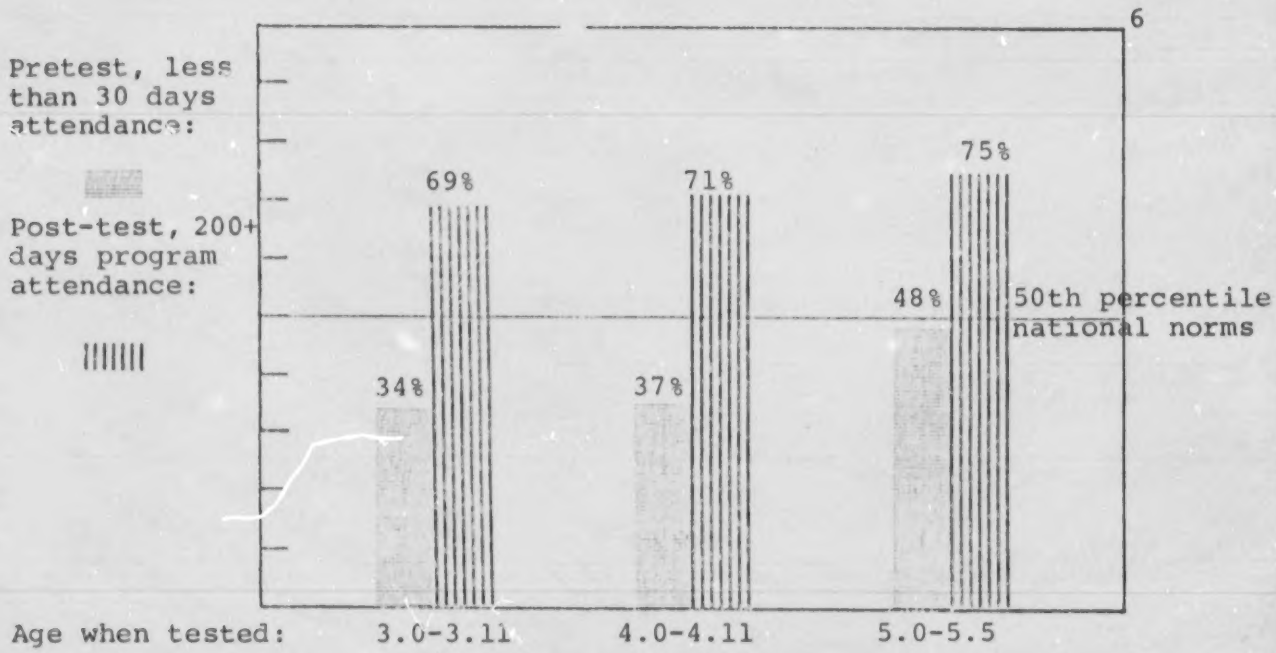


Figure 1: National percentile ranks on the Cooperative Preschool Inventory of project children before project participation, and after 200+ days attendance.

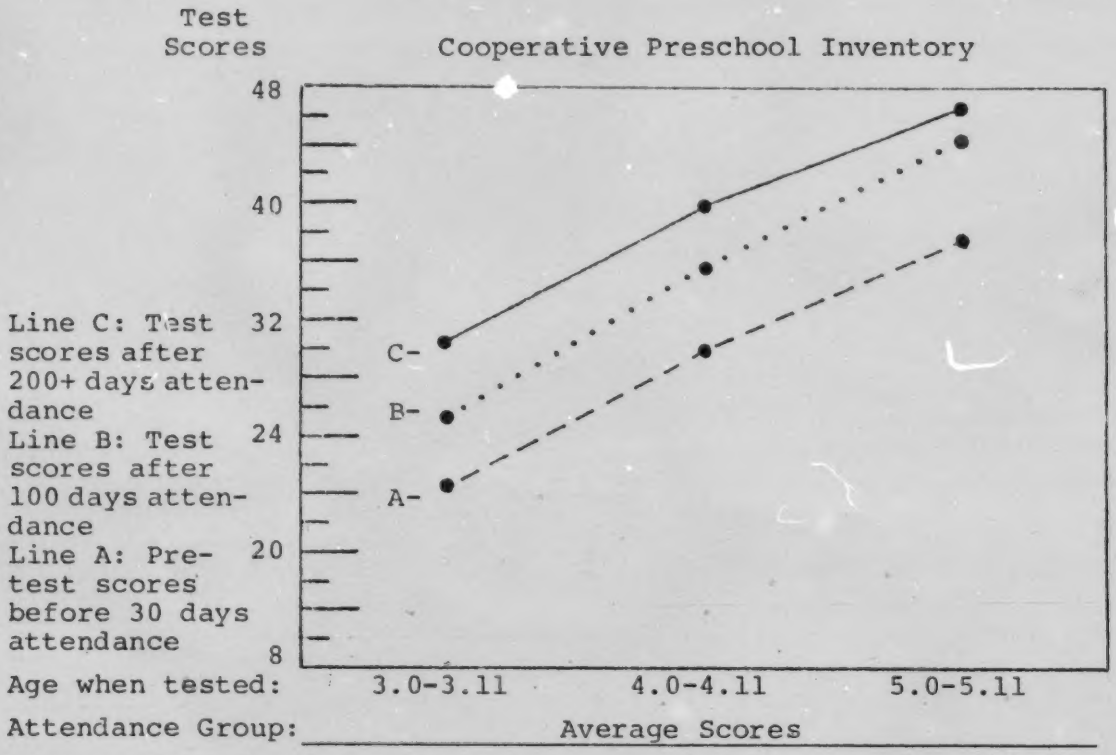
to children in the national standardization group. After project instruction of 200 or more days children rank in the 69th to 75th percentile compared to national norms. After project instruction, five-year-olds, ready to start school, demonstrate readiness skills which rank them in the top one-fourth compared to children nationally.

TO SUMMARIZE THE FINDINGS IN FIGURE 1:

1. WITHOUT BENEFIT OF THIS PROGRAM, PROJECT CHILDREN WOULD BE EXPECTED TO DEMONSTRATE READINESS SKILLS THAT WOULD RANK THEM IN THE LOWER HALF OF THE RANGE OF SCORES OF CHILDREN TESTED IN THE NATIONAL SAMPLE.
2. AFTER 200+ DAYS PROJECT EXPERIENCE, AVERAGE SCORES ARE IN THE TOP THIRD COMPARED TO CHILDREN NATIONALLY.
3. AFTER PROJECT PARTICIPATION, FIVE-YEAR-OLDS, READY TO START SCHOOL, AVERAGE TEST SCORES THAT RANK THEM IN THE TOP 25% OF CHILDREN NATIONALLY.

Figure 2 below shows the progress of children after 100 and after 200+ days attendance. Line A indicates the expected level of scores without the program, based on pretest scores accumulated over the past five years. Line B indicates the average scores of children tested at each age after 100 days attendance. And Line C indicates the average scores of children tested after 200+ days attendance. The figure clearly shows that the longer the period of project attendance the greater the gain in mastery of preschool concepts measured by this test. The superiority of children after either 100 or 200+ days attendance over the pretest group of the same age is statistically significant far beyond the .05 level called for in the project goal at all three age levels (e.g., the possibility that this much superiority would occur by chance rather than from program effect is extremely small). For additional detail on these findings, see technical Appendix A.

Guillermo Venecia teaches preschool level children at La Grulla. The DISTAR language series teaches both preschool concepts and language.



Attendance Group:	Average Scores					
Line C: 200+ days	N=13	30.1*	N=91	39.5*	N=60	46.4*
Line B: 100 days	N=43	25.0*	N=76	35.8*	N=26	44.2*
Line A: Under 30	N=92	20.4	N=68	30.6	N=18	37.6

*The superiority of this score over the norm group (pretest scores) the same age at the time of testing, is statistically significant far beyond the .05 level.

Figure 2: Comparison of scores on the Cooperative Preschool Inventory by project children with differing periods of attendance.

TO SUMMARIZE THE FINDINGS IN FIGURE 2:

1. AT EVERY AGE LEVEL CHILDREN WHO HAVE ATTENDED 100 DAYS (LINE B) SHOW SUPERIORITY OVER THE AVERAGE SCORES OF CHILDREN OF CORRESPONDING AGE TESTED BEFORE PROJECT EXPERIENCE.
2. ATTENDANCE BEYOND 200 DAYS RESULTS IN CONTINUED IMPROVEMENT AT EACH AGE LEVEL.
3. THE SUPERIORITY OF CHILDREN AFTER EITHER 100 OR 200 DAYS ATTENDANCE OVER CHILDREN TESTED BEFORE PROGRAM EXPERIENCE IS STATISTICALLY SIGNIFICANT FAR BEYOND THE .05 LEVEL CALLED FOR IN THE PROJECT EVALUATION GOAL.

GOAL 2. SPANISH SPEAKING CHILDREN WILL IMPROVE IN SPANISH.

THE NEED: The need for continued instruction in Spanish is based on the expressed wishes of the families whose children are served by the program. They want their children to keep their Spanish language capability and to improve it.

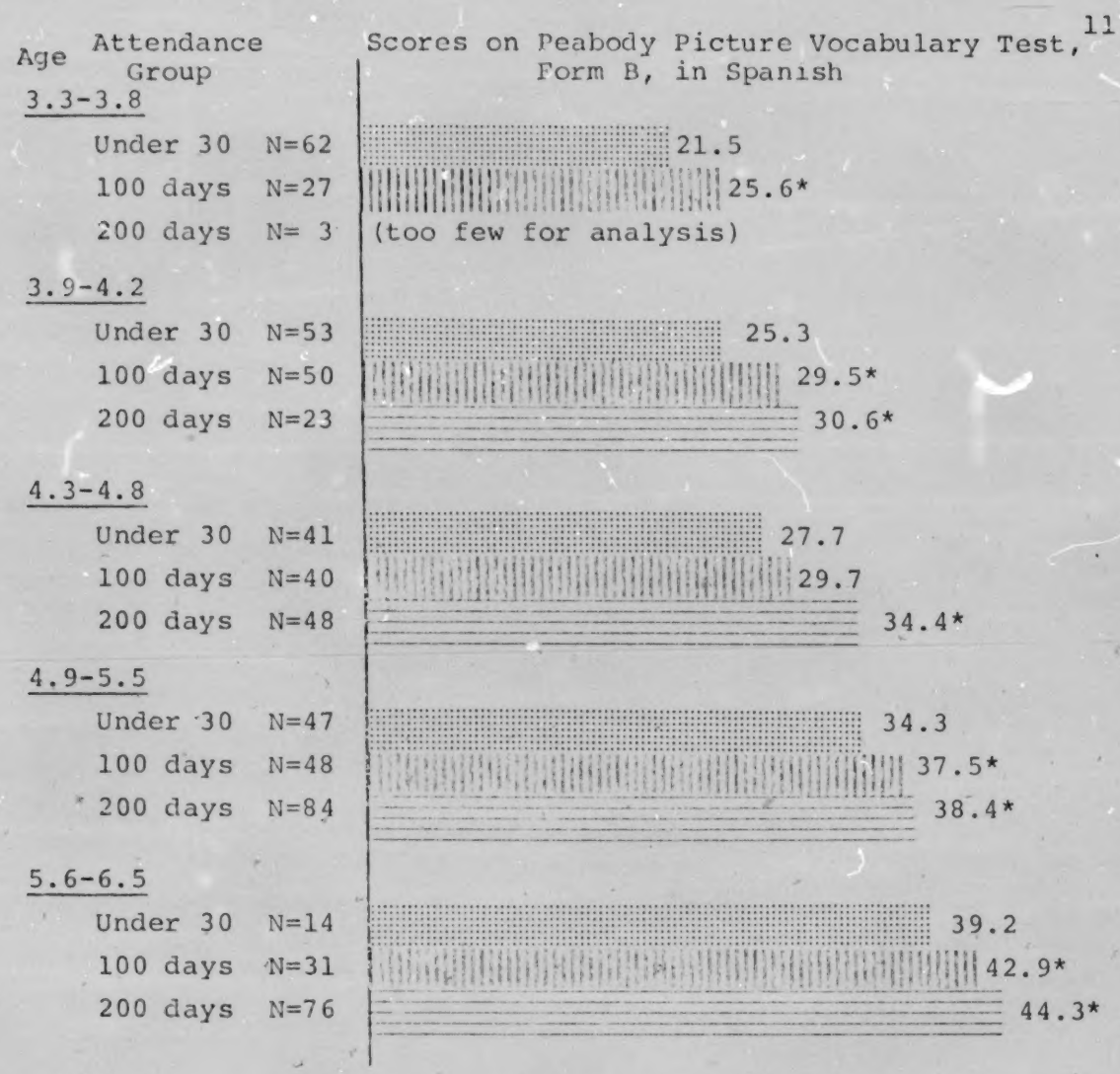
THE TEACHING PROCESS: Teachers provide oral language lessons in Spanish at least 20 minutes long, daily for preschool children and at least twice a week for school-age children, using the DISTAR language curriculum in Spanish (1976 field test edition). This is an aural-oral approach, taught in a small group, with programmed lessons outlined in a teacher presentation book. It involves a fast paced verbal exchange in which children would be expected to make from 150 to over 200 language responses during a 20-minute lesson period.

In addition, all teachers are bilingual and use both Spanish and English in the teaching of all other curriculum subject areas, and informally throughout the day.

Jesusa Benavides (Connell, WA) teaching oral language lessons from DISTAR language series (published by SRA). The 1967 edition is used in English and the project is field testing the 1976 edition in Spanish.

THE RESULTS: Figure 3 demonstrates the increase in scores on the Peabody Picture Vocabulary Test, Form B, in Spanish by children with longer periods of attendance in the program. As children may begin this program at any age from three to six, pretest scores within each age range represent the "expected" average score for project children at that age. This is shown by the top line within each age group. The average score of children after 100 days attendance and after 200+ days attendance are graphed on the second and third lines shown for each age group. The figure clearly shows that there is a significant and continuing increase in scores with each 100 days of attendance in the program. The superiority of the scores of children after 200+ days attendance over the scores of children pretested at the corresponding age is statistically significant beyond the .05 level called for in the evaluation goal at every age level. For the youngest group, 3.3-3.8, there were an insufficient number who had attended 200 days for analysis. At this age level, however, the superiority by the children with only 100 days attendance was significant beyond the .05 level. (Additional detail on these findings is included in Technical Appendix A.)

La Raspa, Bilingual Mini Head Start style.



*The superiority of this score over the pretest group of the corresponding age (under 30 days attendance) is statistically significant beyond the .05 level.

Figure 3: Comparison of mean scores on the Peabody Picture Vocabulary Test, Form B, in Spanish, for project children with differing periods of attendance.

TO SUMMARIZE THE FINDINGS IN FIGURE 3:

1. CHILDREN SHOW CONTINUED GAINS IN SPANISH THE LONGER THEY PARTICIPATE IN THE PROGRAM.
2. AT EVERY AGE LEVEL THE SUPERIORITY AFTER 200+ DAYS PROJECT ATTENDANCE OVER CHILDREN OF THE SAME AGE TESTED BEFORE PROJECT ATTENDANCE IS STATISTICALLY SIGNIFICANT.

GOAL 3. SPANISH SPEAKING CHILDREN LEARN ENGLISH.

THE NEED: Of the Spanish dominant children served for 100 days or more by this program through April of 1976, 68% entered the program monolingual in Spanish. An additional 14% (making a total of 82%) had a "fair" degree of bilingualism, e.g., the score in English was above 10 points (considered the cut-off for negligible knowledge of English) but was less than 50% as high as their score in Spanish, based on the Peabody Picture Vocabulary Test. Only 16% entered with a functional bilingual classification in both Spanish and English, e.g., Spanish dominant but a score in English more than 50% as high as their score in Spanish.

THE TEACHING PROCESS: Preschool children receive lessons in English daily, and school-age children English language lessons at least twice a week. Lesson periods are from 20 to 30 minutes long. DISTAR language materials in English are used, involving intensive oral language practice by the teacher with a small group. Children make group and individual responses.

Child choice activities reinforce language learning in both Spanish and in English. The project's goal is bilingualism--children able to use both languages effectively.

In addition, all teachers are bilingual and use both Spanish and English in teaching children all academic areas, and both languages are used informally throughout the day.

THE RESULTS: Figure 4, following, shows the percentage of children classified as functionally bilingual (English score at least 50% or more as high as their score in Spanish) after differing periods of program participation. As noted before, 16% of the children entered the program bilingual. After 100 days this had more than doubled, with 34% classified bilingual. Of the children served 200 days the majority classified bilingual, 56%. And for children with 300 or more days in the program 79% classified as bilingual.

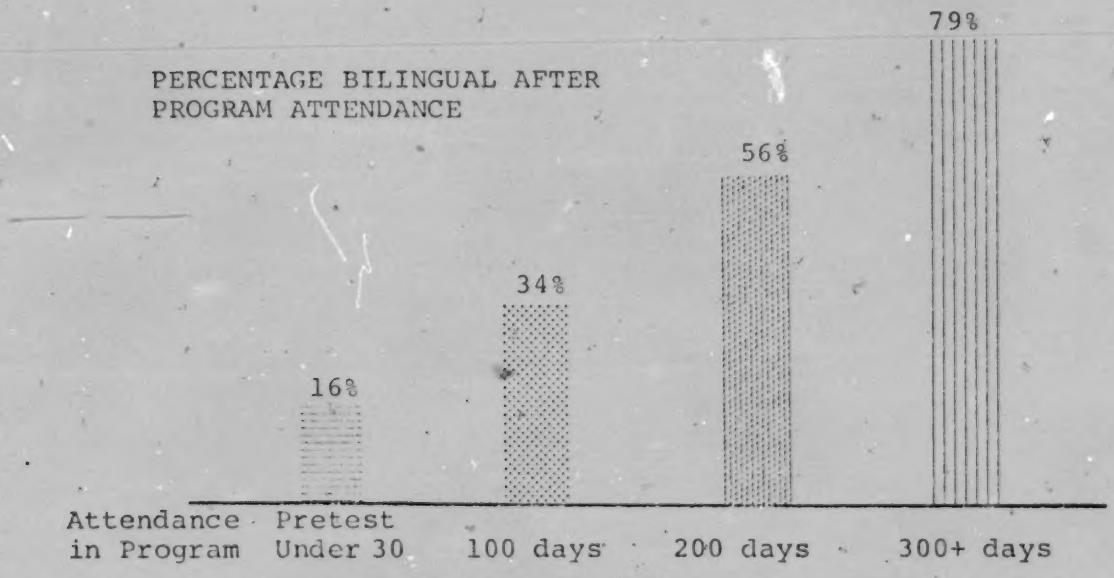


Figure 4: Percentage of Spanish dominant children whose scores in English on the Peabody Picture Vocabulary Test, compared to their score in Spanish on the same test, classified them as "bilingual," after differing periods of program attendance.

TO SUMMARIZE THE FINDINGS FROM FIGURE 4:

1. MOST SPANISH SPEAKING CHILDREN (84%) ENTER THE PROGRAM WITH VERY LIMITED KNOWLEDGE OF ENGLISH. ONLY 16% START WITH SUFFICIENT KNOWLEDGE IN BOTH SPANISH AND ENGLISH TO BE CLASSIFIED AS FUNCTIONALLY BILINGUAL.
2. EACH 100 DAYS PROGRAM ATTENDANCE SHARPLY INCREASES THE PERCENTAGE OF CHILDREN CLASSIFIED FUNCTIONALLY BILINGUAL.
3. AFTER 200 DAYS THE MAJORITY OF CHILDREN HAVE REACHED BILINGUAL CLASSIFICATION, AND AFTER 300 OR MORE DAYS THE PERCENTAGE RISES TO 79%.

For additional information on children's progress in learning English see Technical Appendix A.

Mirella Pruneda, enrolled in the year-round program at Connell, Washington. Children in the northern centers, like those in Texas, have interruptions in their education. Mirella, like many other children who have settled in Washington State, travels with her family to Mexico every winter. Her family migrates to Minnesota in the summer.

GOAL 4. CHILDREN GAIN MATH SKILLS.

THE NEED: The project uses the Wide Range Achievement Test to measure math skills. This is a nationally standardized test which allows comparison of the skills of project children with a norm group of children in a national sample, for children over the age of five. (Although there are norms for preschool children these are based on projections downward from actual testing of children five and over.) Children who have started in the project when they were five, six, or seven have averaged scores on their math pretest which rank them in the lowest 20% of scores achieved by children in the national sample. This would be the expected level of achievement without this program.

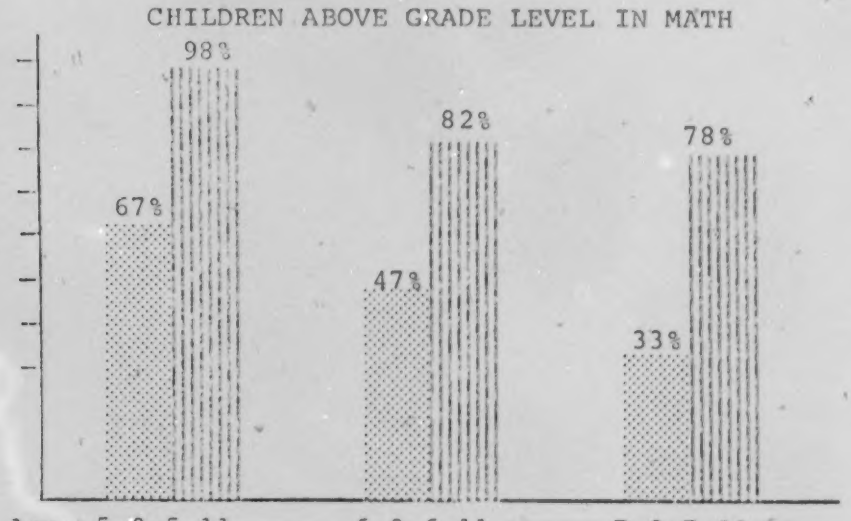
THE TEACHING APPROACH: Teachers provide math lessons daily to the preschool children, and at least twice a week to school-age children. Lesson periods average 20 minutes in length. The three-year-old children begin with a project developed pre-math curriculum. A teacher uses a presentation book with a small group, with the counting and other concepts heavily reinforced by the use of real objects, number concept games, flannel board, etc.

Beginning at about age four children begin math centered on consumable workbooks published by Random House under the trade name of Singer "Sets and Numbers." This is based on set theory and is taught in units. The material is not programmed so the paraprofessional teachers have a series of very explicit training units they are given which helps them teach the concepts to the children. In addition, the project developed a series of achievement tests which checks the child's mastery of the concepts taught in this curriculum. These are given periodically to children by an independent tester, and if a child misses particular concepts repeatedly trainer is alerted to provide additional help to the teacher in how to present that concept. The achievement tests are also used for placement of children in the material, and to identify concepts they may have forgotten during a move or absence since a migrant population encounters many more breaks in their education than a non-migrant group would.

Teresa Mahaffey works with child using a number line to help her work problems in Singer "Sets and Numbers" (published by Random House). This curriculum allows the child's work to be completely individualized.

The math materials used can be completely individualized and a teacher can successfully work with a group all of whom may be on different pages or even in different books. Because of the disruptions in schooling experienced by a migrant population, materials that could be individualized were a very important factor in selecting the curriculum materials to be used. The results outlined in the following section would appear to indicate that the math program adopted, and the adaptations by way of training and achievement testing which were project added to fit the needs of paraprofessional teaching staff, have produced a very powerful math teaching program.

THE RESULTS: As shown in Figure 5, without the program the children in the target population would be expected to have less than half the children at or above grade level in math by age six and less than one-third at or above grade level by age seven. This is based on the accumulation of pretest scores of project children who started the program after they were five, six, or seven. The second column in each age group represents project children who started at an earlier age, and had accumulated 200 or more days of project attendance by the age for which their test scores are reported. Of these children over 75% had scores at or above grade level compared to national norms on this test at all three age levels reported. Among those tested at age five, who had been enrolled in the preschool program, 98% had individual scores at or above grade level at the age in which they would be entering public schools.



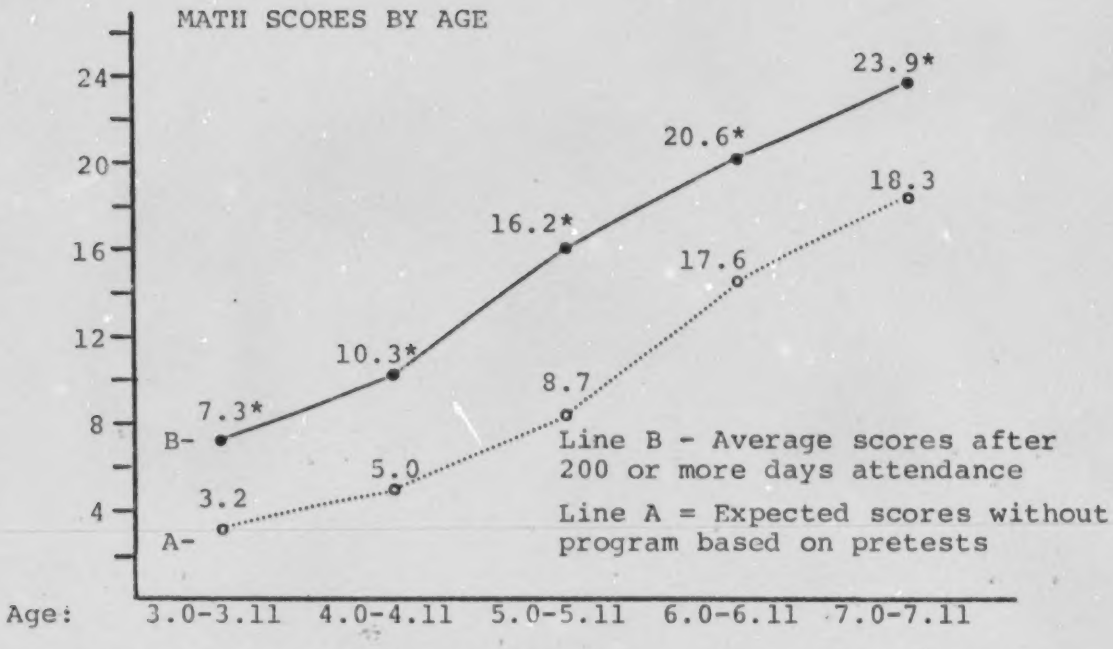
*("Pre" = children pretested before 30 days attendance who first enrolled at the age shown. "200+" are children who were the age shown when post-tested after an attendance period of 200 or more days.)

Figure 5: Percentage of children tested at different ages who were at or above grade level according to national norms on the Wide Range Achievement Test.

TO SUMMARIZE THE FINDINGS FROM FIGURE 5:

1. BASED ON PRETEST SCORES, THE MAJORITY OF PROJECT CHILDREN WITHOUT BENEFIT OF THIS PROGRAM WOULD HAVE BEEN EXPECTED TO SCORE BELOW GRADE LEVEL FOR THEIR AGE BY SIX OR SEVEN.
2. AFTER PROGRAM PARTICIPATION OF 200 DAYS OR MORE, PROJECT CHILDREN OVERWHELMINGLY ACHIEVE SCORES AT OR ABOVE GRADE LEVEL BY NATIONAL NORMS.
3. NINETY-EIGHT PERCENT OF CHILDREN READY TO START SCHOOL AT AGE FIVE WHO HAVE PARTICIPATED IN THE PROJECT PRESCHOOL PROGRAM HAVE MATH SKILLS ABOVE NATIONAL NORMS.

Figure 6 below graphs the actual scores of children age three through age seven on the math section of the Wide Range Achievement Test. The dotted line indicates the level of expected achievement of project children without the program. This is based on the cumulative scores of children pretested when they first enrolled in the program. Since the program enrolls children of all ages, three through seven, there are pretest scores to establish a baseline of expected achievement at each age. The solid line represents the scores of children who had attended at least 200 days by the age at which their test scores are shown. A test of statistical significance was carried out between project children after 200 days, and the norm group based on pretest scores of other children the same age. This showed that the superiority after project attendance for each age group was statistically significant far beyond the .05 level set in the project goal. (For additional detail see Technical Appendix A.)



*The superiority of this score over the pretest scores of project children the same age is statistically significant beyond the .0005 level.

Figure 6: Average scores compared for children of the same age before and after project experience, Wide Range Achievement Test, math subtest.

TO SUMMARIZE THE FINDINGS OF FIGURE 6:

1. AT EVERY AGE LEVEL PROJECT CHILDREN ACHIEVE MUCH HIGHER SCORES IN MATH THAN WOULD BE EXPECTED WITHOUT THE PROGRAM.
2. THE SUPERIORITY OF THE SCORES AFTER 200 DAYS ATTENDANCE IS STATISTICALLY SIGNIFICANT AT A VERY HIGH LEVEL, E.G., THE POSSIBILITY THAT THIS MUCH SUPERIORITY WOULD RESULT BY CHANCE LESS THAN FIVE IN 10,000.

GOAL 5. CHILDREN WILL GAIN READING SKILLS IN ENGLISH.

THE NEED: Pretest scores of Spanish dominant children five, six, and seven who have started in this program at those ages reflect the "expected" level of achievement in reading of the project group. According to national percentiles, five-year-old children average scores at the 10th percentile, six-year-old's at the 10th percentile, and seven-year-old's at the 5th percentile--e.g., 5% of the children in the national sample had an equivalent score or one lower at a corresponding age. This represents the expected level of achievement without a special program.

THE APPROACH: The oral language program attempts to establish a base for reading. In addition, after approximately age four preschool children have a daily lesson, and school-age children have a lesson at least twice a week in reading, in English.

The project uses a Primer developed at the University of Kansas from which children in small groups learn to perform actions following the teacher's cues. From this they learn to work from left to right and the basic skills necessary to learn sounds and blending. A few sounds are taught with Primer, and the skill of blending them together. These skills allow the child to begin in the Sullivan programmed reading series (published by McGraw-Hill). Once into Sullivan, the children can work in a completely individualized program at their own pace.

The Sullivan material was selected for several reasons. It uses a phonetic approach with a controlled vocabulary so that initially the child only has to remember one sound for each letter (apart from a limited number of irregular words which are taught as sight words). This is especially helpful to children whose home language is Spanish since they do not have to cope with all the complexities of the different sounds which letters take in English until after they have mastered the skills of word attack, etc., essential to reading.

It also is programmed so that the children have a great deal of review built in. The picture illustrations in the

Trainer, Lynn Morrison, and teacher Lucy Garibay working with child in Sullivan Programmed Reading series. Child pulls "slider" down after writing her answer to check in the margin to see if she is correct. Each child in the reading program under a teacher is likely to be in a different place in the materials. Individualization is most important for a migrant population with many disruptions in schooling.

the workbook are usually clear and uncluttered so a child for whom English is a second language is helped in comprehension. Children read a sentence and fill in a word or letter as appropriate, or circle an answer to a comprehension problem. They then can check themselves by pulling down a slider in the margin which reveals the correct answer. Since the child can check and correct his own work each can proceed at his own pace. A teacher is easily able to work with a small group of children each working on a different page, even different books (there are 21 books in the series).

As in the other curriculum areas, the project has developed specific teacher training materials which largely replace the

teachers' manuals put out by the publisher, in helping the paraprofessional staff understand the techniques required to teach the materials effectively. The project has also developed achievement tests which are used by an outside tester (other than the teacher) to check children's comprehension. If these tests show a child to be having difficulty with material he has covered, the trainer is able to assist the paraprofessional teacher in how to present the concept or skills involved.

THE RESULTS: Figure 7 demonstrates the difference which program attendance has made in reading skills in English. Using the grade equivalent scores based on national norms, project children who had been enrolled in the preschool program averaged scores five "grade equivalent" months higher than project children who were starting in the program at age five. After 200 days attendance six-year-old children showed an eight-month advantage and seven-year-old children an 11-month superiority over other project children who were pretested at those ages.

Figure 8 which follows shows the growth in reading skills by project children after 100 and after 200+ days attendance for each age level. The top bar for each age level represents expected scores without the program. This is based on pretest scores of project children starting the program at that age. The other bars show average reading scores after 100 days and 200+ days project attendance. In all ages the scores have increased sharply by 100 days attendance, and even more by 200 days project attendance. The superiority of children by 200+ days attendance over the pretest group is statistically significant far beyond the .05 level specified in the project goal. (Additional details in Technical Appendix A)

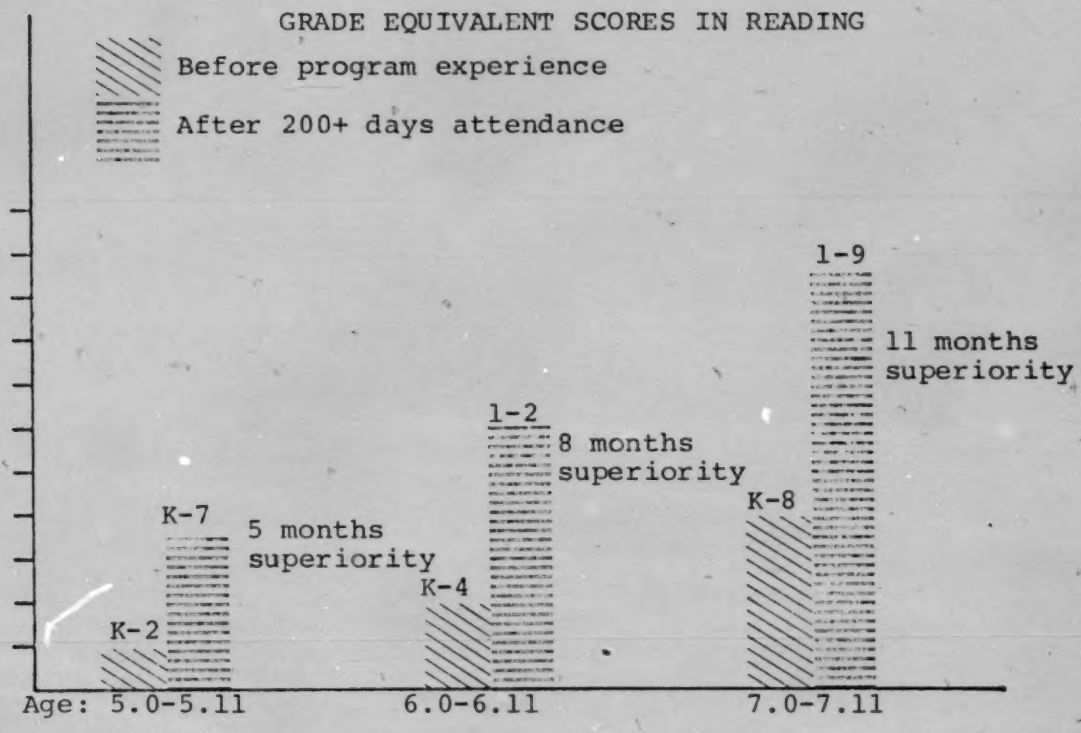
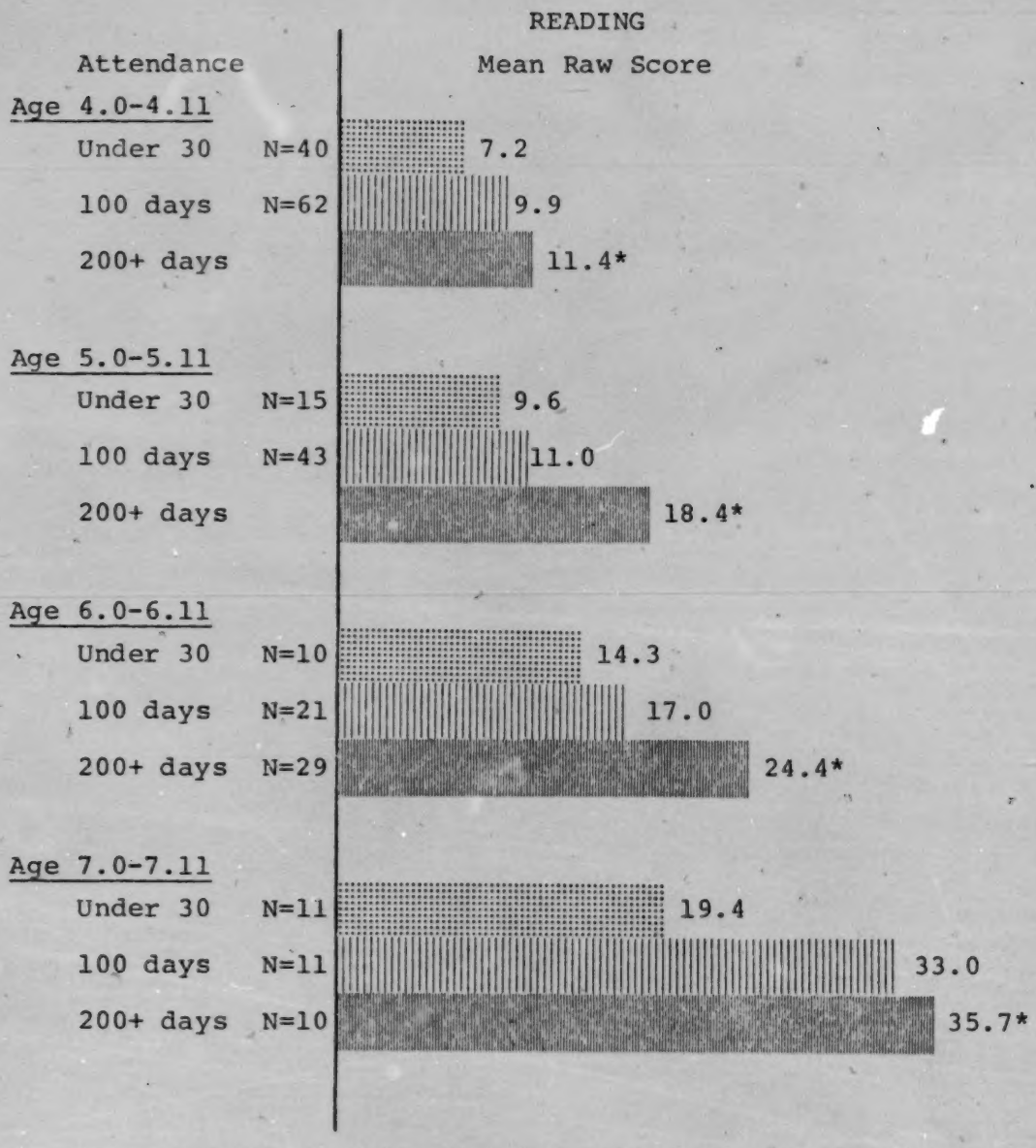


Figure 7: Grade equivalent scores in reading in English, as measured by the Wide Range Achievement Test, by age and period of attendance in program.

TO SUMMARIZE THE FINDINGS OF FIGURE 7:

1. BEFORE PROJECT EXPERIENCE, SPANISH DOMINANT CHILDREN AVERAGE READING SCORES IN ENGLISH AT A PRESCHOOL LEVEL THROUGH AGE SEVEN (SCORES AT THIS LEVEL CAN BE ACHIEVED BY MATCHING AND NAMING LETTERS, WITH NO ACTUAL READING OF WORDS).
2. BY AGE FIVE, CHILDREN WHO HAD ATTENDED THE PRESCHOOL PROGRAM AVERAGE READING SCORES FIVE MONTHS HIGHER THAN THEIR COUNTERPARTS WITHOUT PROGRAM EXPERIENCE.
3. THE SUPERIORITY IN READING BY PROJECT CHILDREN AFTER 200 DAYS ATTENDANCE OVER CHILDREN TESTED BEFORE PARTICIPATION GETS LARGER EACH YEAR BASED ON GRADE EQUIVALENT SCORES DRAWN FROM NATIONAL NORMS.



*Superiority of children with 200+ days attendance over the same age with less than 30 days attendance, is statistically significant beyond the .005 level.

Figure 8: Scores on Wide Range Achievement Test by Spanish dominant children, by age and period of attendance, in reading in English.

TO SUMMARIZE THE FINDINGS OF FIGURE 8:

1. READING SCORES IMPROVE WITH LONGER ATTENDANCE IN THE PROGRAM.
2. THE SUPERIORITY OF PROJECT CHILDREN AFTER 200+ DAYS ATTENDANCE OVER PRETEST SCORES OF CHILDREN THE SAME AGE IS STATISTICALLY SIGNIFICANT AT EVERY AGE LEVEL (E.G., THE CHANCE OF THIS MUCH SUPERIORITY OCCURRING BY CHANCE LESS THAN FIVE IN ONE THOUSAND).

GOAL 6. CHILDREN LEARN HANDWRITING SKILLS.

THE NEED: The preschool level of the spelling subtest of the Wide Range Achievement Test is a test of visual-motor coordination, in which the child is asked to copy marks of increasing difficulty and print two letters of his name. A percentile ranking of scores is available for five-year-olds. Project children's pretest scores were the third percentile, i.e., in the national sample only three percent had an equal or lower score. Percentile scores are not published on this test for children under age five.

THE APPROACH: The project uses curriculum materials developed by the University of Kansas for their Follow Through and Head Start programs. These consist of a series of 29 ditto masters from which practice handwriting sheets are printed up in which the children shape their writing skills to greater levels of coordination. After completion of the "levels" as the University of Kansas materials are called, the children go into a project adapted version of a Handwriting series that is now out of print, Lyons and Carnahan "Write and See." In these the children go from tracing (which they did in the levels) to copying and free form printing followed by cursive writing. The adaptation of these materials by the project has been to resequence them and to add in-book tests which teachers can use to check children's ability. For the youngest children not yet ready to hold a pencil, pre-handwriting exercises are given using chalk, crayons, etc. Children also learn left-right sequencing and working from the top to the bottom of a page from this curriculum. Lessons approximately 10 minutes in length are given daily to preschool children.

As with other curriculum areas the project has a series of two training units from which migrant adult paraprofessional teachers learn the essential skills to teaching these materials. And as in other curriculum areas, the project has also developed an achievement test keyed to the curriculum which enables an outside tester (other than teacher) to check the child's

ability over the curriculum he is reported by his teacher to have covered. This allows remediation to be focused on skills he may have missed, and allows the trainer and other supervisory staff to see where a teacher may need assistance based on child performance.

THE RESULTS: Figure 9, which follows, uses the grade equivalent scale of the spelling subtest of the Wide Range Achievement Test to compare the scores of children before program experience and after 200+ days.

As shown on the graphs, without program experience the majority of children age four and five have individual scores below "grade level" for their age. After program experience of 200+ days, the overwhelming majority achieve individual scores at or above grade level for their age.

Figure 10, which follows, shows the progression of gains after 100 days and after 200+ days attendance. At both 100 and at 200+ days attendance, the superiority of children over the pretest scores of children the same age is statistically significant beyond the .01 level, which meets the project goal.

AT OR ABOVE NATIONAL NORMS IN HANDWRITING

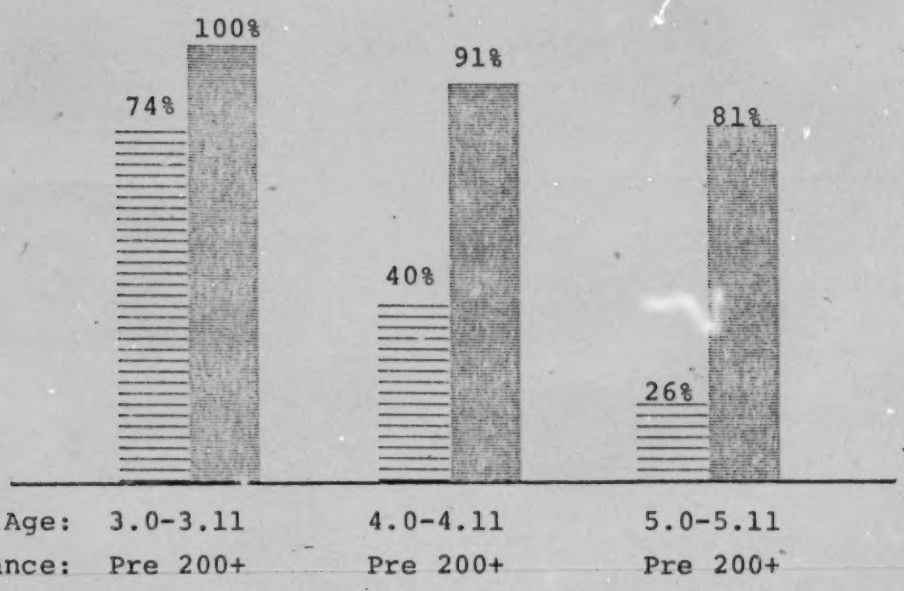
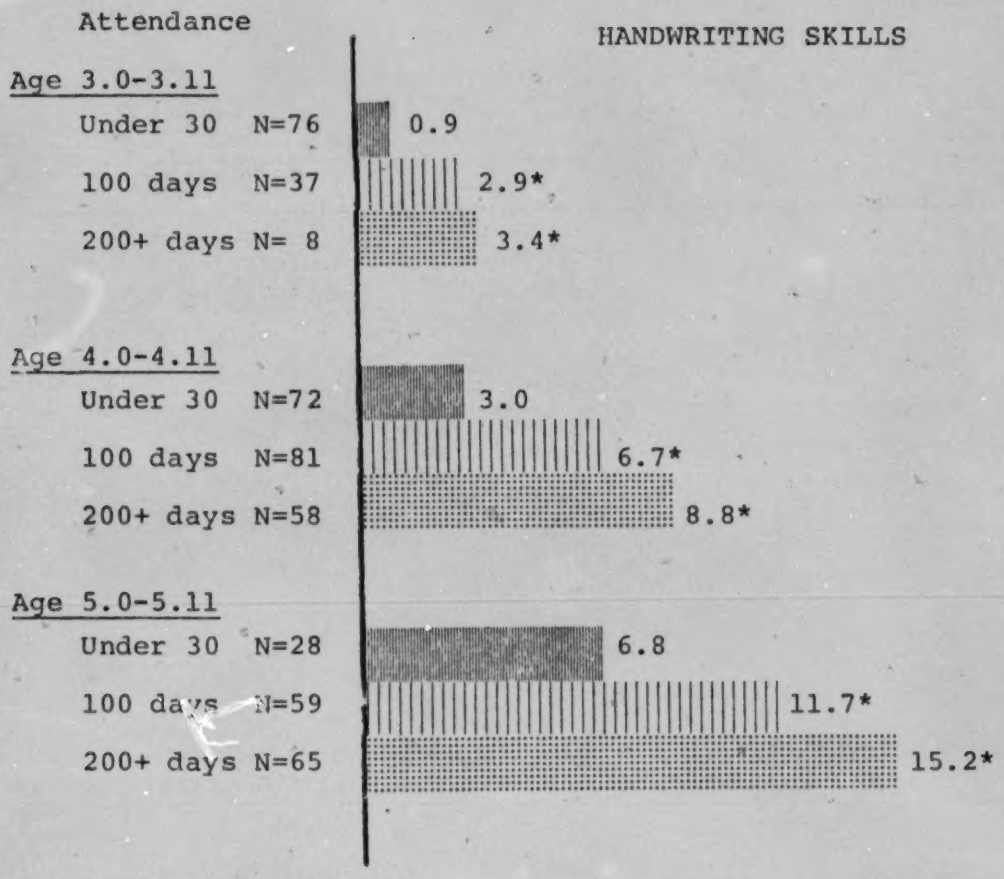


Figure 9: Percentage of children by age whose individual scores on the Wide Range Achievement Test, spelling subtest, are at or above grade level for their age.

TO SUMMARIZE THE FINDINGS IN FIGURE 9:

1. USING GRADE EQUIVALENT NORMS THE MAJORITY OF CHILDREN TESTED BEFORE PROGRAM EXPERIENCE HAVE INDIVIDUAL SCORES BELOW GRADE NORMS FOR THEIR AGE, AT AGE 4 AND 5.
2. THE GREAT MAJORITY OF CHILDREN WHO HAVE HAD PROGRAM EXPERIENCE OF 200+ DAYS HAVE INDIVIDUAL SCORES AT OR ABOVE GRADE NORMS FOR THEIR AGE, AT ALL THREE AGE LEVELS.
3. CONCLUSION: THE PROGRAM IS QUITE POWERFUL IN DEVELOPING VISUAL-MOTOR COORDINATION SKILLS.



*Superiority of this score over pretest group the same age is statistically significant beyond the .01 level.

Figure 10: Mean raw scores by age and attendance period of children tested on the spelling subtest of the Wide Range Achievement Test.

TO SUMMARIZE THE FINDINGS IN FIGURE 10:

1. EACH PERIOD OF PROJECT ATTENDANCE IMPROVES THE HANDWRITING SKILLS OF PARTICIPATING CHILDREN WITH THE GREATEST GAIN MADE IN THE FIRST 100 DAYS.
2. THE SUPERIORITY IN AVERAGE SCORES OF CHILDREN AFTER EITHER 100 OR 200+ DAYS IS STATISTICALLY SIGNIFICANT (E.G., POSSIBILITY OF CHANCE OCCURRANCE EXTREMELY SMALL).

GOAL 7. CHILDREN LEARN OF THEIR CULTURAL HERITAGE.

THE NEED: The need for learning concepts related to a child's culture is not based on test scores, but on the wishes of family that the children learn about the history and culture associated with their two languages. Over 95% of the children served have one or both parents who are Mexican-American, and Spanish is used in the home and community as well as English.

THE TEACHING PROCESS: Cultural concepts are taught informally and formally. All teaching staff have been selected from the same bicultural background as the students and the children therefore have role models sensitive to their own cultural background. Foods of both Mexican and U.S. culture are served and discussed informally. Classroom murals convey clothing and scenes characteristic of both cultures.

Formally, the instruction involves group times (music, dance, stories taught at these times) and lesson time. Regular academic subjects are replaced about twice a month with activities related to culture that require formal planning and preparation such as art activities, or discussions about holidays or national symbols. Periodic "festivals" involving family are developed with culturally related activities (art, costumes, dance, music) focus on these. Child choice activity periods each day frequently have among the choices culturally related activities--particularly storybooks and arts and crafts activities as well as dress-up roleplaying types of activities.

The weekly reports submitted by teachers monitor the inclusion of culturally related activities. The project has developed a published set of activity guides related to Mexican culture, and a series of kits of materials (patterns for projects and background materials) related to U.S. culture as well as the cultures of several other countries--i.e., "Chinese New Year," "Danish Christmas," etc., as the program effort is to increase multicultural awareness. A training unit on teaching skills related to presentation of cultural materials was developed by the project and is part of the regular training program.

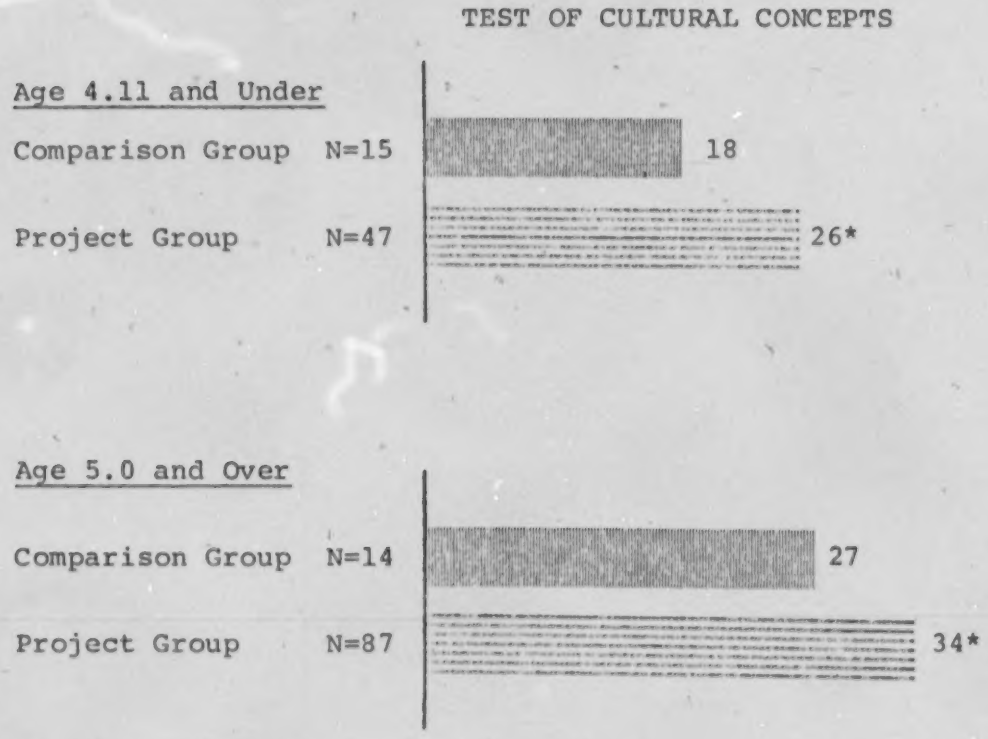
Children learn stories, music, dancing, and games reflecting the culture associated with their two languages, Spanish and English, from teacher Becky Escalera.

THE RESULTS: Of the few developed tests for measuring cultural knowledge most seemed to be directed toward an older student than the three to seven-year-old age range served by this project. These other tests focused on national heroes, historical events, and other abstract levels of cultural knowledge not appropriate to the very young child. Or the tests involved attitude scales requiring scaling of feelings which also seemed too abstract for a very young child. Accordingly the project developed its own test of cultural concepts. The educational director and teachers identified six areas of knowledge to be tested in reference to U.S. and Mexican culture: clothing, food, music, dance or games, holidays, and national symbols. A 44-item test was developed in which a word cue or a music cue is given (Spanish for Mexican related

items, English for U.S. items) to which the child makes a choice from four pictures of the one he thinks best fits the cue. More information on the test and technical information on its reliability, etc., are outlined in Appendix B.

To provide a comparison group against which to measure project gains, children in other programs which recruit using the same criteria as this project were tested. This criteria is that the child is from a family of migrant or seasonal farm workers, with poverty level income, and Spanish/English home language. The scores of these children were compared to scores of project children who had been attending the program for 100 or more days. (The scores of children in the comparison group were also compared to scores of project children pretested before 30 days enrollment in this project, and the scores were nearly identical indicating that before project experience the project and comparison group children are very similar in their cultural knowledge. Additional detail on comparison of groups is given in Technical Appendix A.)

Figure 11, which follows, compares the average score on the BMHS test of cultural concepts between the comparison group and project children with over 100 days program attendance, by age group. In both cases the project children show a much higher score on the test. The difference between the scores was statistically significant beyond the .0005 level--e.g., possibility that this much superiority would occur by chance rather than as a program effect is less than 5 in 10,000.



*Scores given are correct answers out of 44-item test. The superiority of the project group over the comparison group is statistically significant beyond the .0005 level.

Figure 11: Comparison of scores on the BMHS Test of Cultural Concepts between project children with over 100 days attendance and children in a non-project comparison group recruited from the same population group.

TO SUMMARIZE THE FINDINGS IN FIGURE 11:

1. IN A TEST OF CULTURAL CONCEPTS RELATED TO THE UNITED STATES AND MEXICO, PROJECT CHILDREN SHOW SIGNIFICANTLY GREATER KNOWLEDGE THAN A NONPROJECT COMPARISON GROUP.

GOAL 8. CONTINUITY CHILDREN* WILL EXCEED CONTROL GROUP

THE NEED: When migrant children reach school-age they suffer many educational disadvantages associated with their migrancy. which this program was specifically designed to overcome.

One such disadvantage is the travel time lost during moves. Additional in-school time is lost which might be described as "start up" time--the time involved in registration, placement testing, locating textbooks, etc. For the child there is also a period of adjustment to new rules, new teachers, during which anxiety reduces the full attention that can be given to acquiring an education.

Another disadvantage is changing curriculum materials. The methods for learning reading and math can be extremely different from one school to the next, resulting in confusion and lack of mastery of important skills.

The need was to find a way to overcome some of these disadvantages of migrancy. The mobile component of this program was designed for this purpose. There is no way in which the separate public schools at a series of locations can be required to offer the same curriculum materials to lessen the confusion for the migrant child. But by adding a supplementary program for an hour and a half to two hours a day, the project is able to have the same materials used from site to site during the supplementary part of the school day. The materials in use are all individualized and tracked, so that information on the child's placement can be readily obtained after a move. Placement tests were designed to go with this curriculum and can be given after a move to find out what materials the child may have forgotten during an absence. Remediation can therefore be pinpointed rather than having the child review and repeat a broad range of materials. All of this enables him to move ahead more quickly in the curriculum materials the program uses.

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*Continuity children are project children in the mobile component who were enrolled both in Texas and in one or more northern locations under mobile teachers who moved with them from site to site.

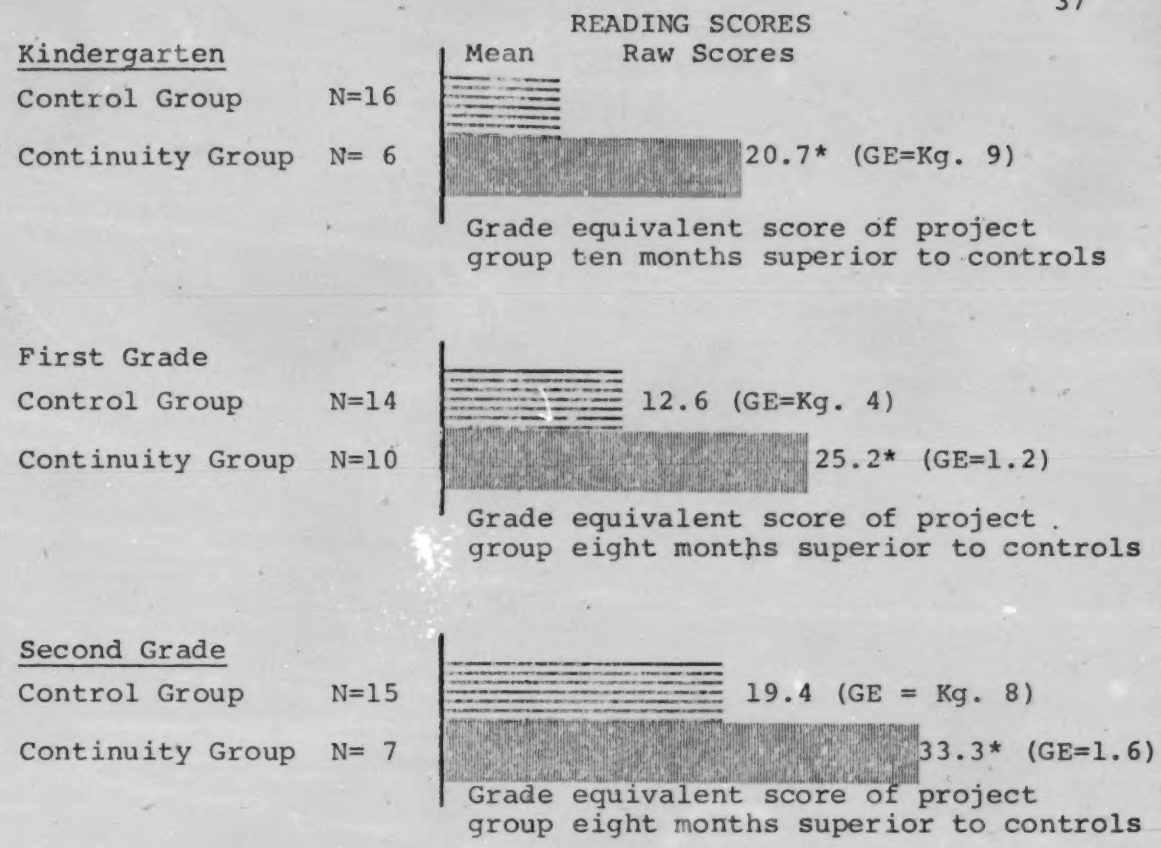
By operating on a twelve-month basis, individual children may be served in a combination of sites enough to make up for time lost during actual moves. Because the mobile staff is the same in Texas and in the north, and shares the child's language and cultural background plus an understanding of what it is like to be a migrant, the time lost in adjusting to new teachers and methods from one site to the next does not exist for that part of the day spent in the mobile program. The migrant child still faces the disadvantages of moving for that part of the day in public school--relocation, time lost, start-up time, changing curriculum. But in the supplementary program which travels with him through the mobile teachers he gets extra weeks of schooling, the same curriculum materials at each site, familiar teachers, and a minimum of confusion and repetition so that what time he has in school can be used for forward progress in learning.

THE TEACHING PROCESS: The curriculum materials used are described elsewhere. Relocating the teachers is done by surveying families as to where they intend to move. New staff are selected who are able to go to these areas, or continuing staff are reassigned to provide service to the maximum number of children after the migration begins. Supervisory staff set up new locations in the northern phase, and talk to schools about arranging release time for children to continue in the bilingual curriculum. If release time cannot be worked out, a schedule is set up for the teachers to work with the children in the labor camps after school.

Frequently the mobile teachers handle two or more groups of children during the day who are available at different times, and even in different places. On the average a mobile teacher will provide continuing instruction to ten or more children (teaching usually in small groups of four to six at any one time). Training and supervisory staff travels from site to site and the reporting system (by mail) enables progress of children at all locations to be continuously monitored.

THE RESULTS: To isolate the effects of the mobile component a special study was set up on math and reading skills of the children in this component. For inclusion in the evaluation the child had to have been served both in Texas and in one or more northern sites, to be school-age, and to have attended the project for at least 200 days by the fall of 1975 when the testing was done. The control group children were in kindergarten, first, or second grade from a neighboring community to La Grulla, Texas. Those selected were Spanish dominant, and approximately the same socioeconomic level as project children because the families leave home each year to migrate in search of farm work in other places. Comparison of the scores of children in the control group to the pretest scores of children in this project are given in Technical Appendix A, and are further evidence that the control group children are like the project children except for the differences made by the mobile teaching program.

Figure 12, which follows, compares the two groups on their average scores in reading (in English). Looking at the scores of the control group very little progress is made from kindergarten through second grade. The grade equivalent score in reading of control group children by second grade is only K-8, e.g., an average score obtained by children in the national sample who were in the eighth month of their kindergarten year. The children in the continuity group in kindergarten have a higher score than that of the second grade children in the control group. At every grade level the continuity group has scores almost a year ahead of the control group based on grade equivalent scores. The difference in average raw scores is statistically significant in favor of the continuity group at the .005 level (e.g., chance of this much difference being from a cause other than the program less than 5 in 1,000).


READING SCORES
Mean Raw Scores
Kindergarten
Control Group N=16
Continuity Group N= 6
20.7* (GE=Kg. 9)
Grade equivalent score of project group ten months superior to controls
First Grade
Control Group N=14
12.6 (GE=Kg. 4)
Continuity Group N=10
25.2* (GE=1.2)
Grade equivalent score of project group eight months superior to controls
Second Grade
Control Group N=15
19.4 (GE = Kg. 8)
Continuity Group N= 7
33.3* (GE=1.6)
Grade equivalent score of project group eight months superior to controls

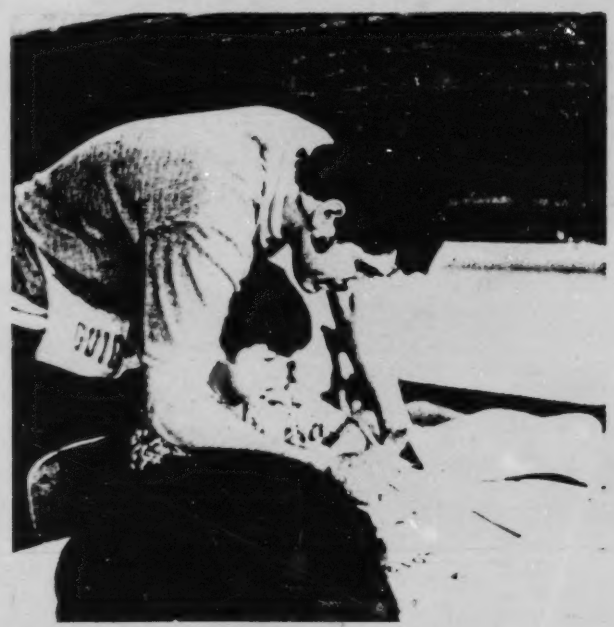
*The superiority of this score over that of the control group children of the same age is statistically significant beyond the .005 level.

Figure 12: Comparison of mean raw scores of project continuity group children and a control group of non-project children of the same grade levels, on the reading subtest, Wide Range Achievement Test.

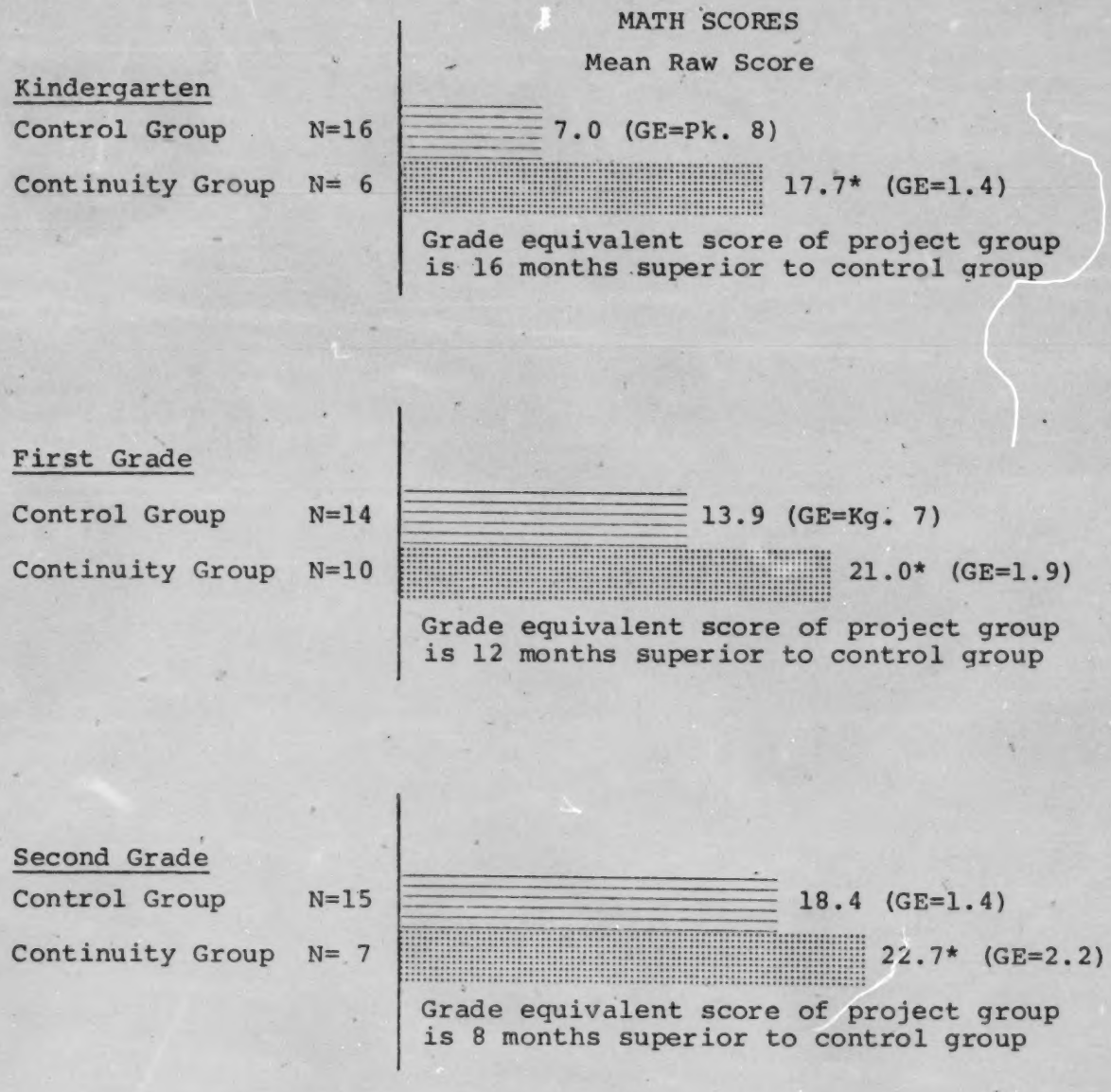
TO SUMMARIZE THE FINDINGS OF FIGURE 12:

1. THE READING SCORE OF PROJECT CHILDREN SERVED IN THE MOBILE PROGRAM IS SIGNIFICANTLY HIGHER THAN THAT OF MIGRANT CHILDREN IN A CONTROL GROUP, AT EVERY GRADE LEVEL.
2. CHILDREN IN THE PROJECT SHOW ABOUT A ONE-YEAR ADVANTAGE IN READING OVER CONTROL GROUP CHILDREN, BASED ON GRADE EQUIVALENT SCORES FROM NATIONAL NORMS.
3. KINDERGARTEN AGE CHILDREN, WHO HAD BEEN IN THE PROJECT PRESCHOOL PROGRAM, START SCHOOL WITH READING SCORES THAT EXCEED THAT OF CONTROL GROUP CHILDREN WHO ARE IN SECOND GRADE.

Figure 13 compares the scores of continuity group project children and the control group in math. As in reading, at every grade level the math scores of project children are greatly superior to the control group who did not have a mobile program. The difference between the two groups is most pronounced for the kindergarten children who had been in the project preschool program for 200 or more days. The average math scores of kindergarten project children is 16 months superior to the kindergarten control group children's average math score, and 8 months above national norms for this age. By second grade the project children's average score is exactly at the national norm but 8 months above the average score of the migrant control group. At all three grade levels the superiority of the project continuity group over the control group is statistically significant beyond the .005 level (possibility of this much difference by chance less than 5 in 1,000). Additional details are in Technical Appendix A.



Aniceto Zarate works with children in La Grulla, Texas during the winter; then teaches project children in Pasco, Washington during the spring and summer months. Through the mobile teachers, children have continuity in at least part of their education from one move to the next.


MATH SCORES
Mean Raw Score
Kindergarten
Control Group N=16
7.0 (GE=Pk. 8)
Continuity Group N= 6
17.7* (GE=1.4)
Grade equivalent score of project group is 16 months superior to control group
First Grade
Control Group N=14
13.9 (GE=Kg. 7)
Continuity Group N=10
21.0* (GE=1.9)
Grade equivalent score of project group is 12 months superior to control group
Second Grade
Control Group N=15
18.4 (GE=1.4)
Continuity Group N= 7
22.7* (GE=2.2)
Grade equivalent score of project group is 8 months superior to control group

*The superiority of this score over that of the control group of the same grade level is statistically significant beyond the .005 level.

Figure 13: Comparison of mean raw score of project continuity group children and a control group of non-project children of the same grade levels, on the math subtest, Wide Range Achievement Test.

TO SUMMARIZE THE FINDINGS OF FIGURE 13:

1. MATH SCORES OF PROJECT CHILDREN IN THE MOBILE PROGRAM ARE SIGNIFICANTLY HIGHER THAN THE CONTROL GROUP CHILDREN AT EVERY GRADE LEVEL.
2. KINDERGARTEN CHILDREN WHO HAD BEEN IN THE PROJECT PRE-SCHOOL START SCHOOL WITH MATH SCORES FAR ABOVE THE NATIONAL NORMS.
3. PROJECT CHILDREN IN THE MOBILE PROGRAM MAINTAIN ALMOST A FULL YEAR SUPERIORITY TO CONTROL GROUP CHILDREN IN MATH GRADE EQUIVALENT SCORES.

CONCLUSION: Continuity provided by the mobile program produces a powerful advantage to migrant children in helping them progress in school. With the mobile program migrant children are able to achieve in math at or above national norms. In reading progress the mobile migrant children are nearly a full year ahead of their counterparts. As national policy now provides nearly all funding for migrant education to programs which operate in isolated locations bound together by no coordinative effort, these findings on the benefits of continuity should be considered in devising migrant education policies for the future.

INSTRUCTIONAL COMPONENT

PROCESS OBJECTIVE 1. CENTERS USE INSTRUCTIONAL MODEL.

GOAL 1.1: The staff of each center (i.e., the trainer and the teachers under his/her supervision, who may be located at a number of different operating sites in the case of the mobile component) will adhere to the program's instructional model, based on a score of 80% or better on the implementation checklist (criteria for scoring are contained in the checklist) administered at least semi-annually.

ACHIEVEMENT CRITERIA: A score of at least 80% on the Implementation Checklist for each center operation.

PROGRESS REPORT: This goal could not be evaluated. The checklist was not developed until nine months into the program year. In field try-out it proved in need of change so is being revised, and insufficient evidence is available to report on this objective.

PROCESS OBJECTIVE 2. CENTER STAFF USING PROGRAM CURRICULUM.

GOAL 1.2: Teachers will use the project's curriculum materials as selected by the educational director resulting in a rating of "satisfactory" on the curriculum utilization checklist for each other.

ACHIEVEMENT CRITERIA: Schedules must include all curriculum areas and be satisfactory to the resource trainers in terms of length of instructional periods, alternating quiet and active periods, providing reinforcement activities. Weekly curriculum reports must be rated + based on progress by children, every curriculum area reported, reasons given for any supplementary material being used. Criteria is at least 80% plus ratings for all teachers in all curriculum areas, for each center site (the mobile centers count as one site).

PROGRESS REPORT: The Resource Trainer has reviewed schedules at each site, recommended changes where appropriate, and approved final schedules as documented by a checklist for each schedule review conducted and covering memo from the resource trainer.

Weekly curriculum reports were received from all teachers from all sites indicating utilization of the project's curriculum. The rating system for judging satisfactory progress was changed in mid-year so that a percentage rating for each center is not meaningful to report.

INSTRUCTIONAL COMPONENT

PROCESS OBJECTIVE 3. TEACHERS USE APPROPRIATE INSTRUCTIONAL PROCEDURES.

GOAL 1.3: At least 80% of teachers who have been employed four months or longer will meet all the criteria on project developed monitoring instruments of teachers' usage of appropriate instructional procedures at least once during each evaluation period.

ACHIEVEMENT CRITERIA: Out of teachers employed four months or longer, at least 80% will have a rating of satisfactory at least once during each evaluation period on project monitoring instruments on teachers' usage of appropriate instructional procedures.

PROGRESS REPORT: There were 30 teachers who were employed for four months or longer during the period July, 1975 through June, 1976.

Most teachers had repeated monitoring by trainers on the two instruments used to check teaching methods.

INSTRUMENT 1. Maintaining Active Learning Teacher Observation. Twenty-four out of 30 had at least one observation, with a passing grade during the evaluation period. This is 80% which meets the project objective.

INSTRUMENT 2. Dual Language Teaching.
Twenty-five out of 30 had at least one observation, with a passing score during the evaluation period. This is 83% which meets the project objective.

STAFF DEVELOPMENT COMPONENT

GOAL 1. TEACHERS MASTER IN-SERVICE TRAINING UNITS.

THE NEED: The only teachers who work directly with the children in this program are migrant paraprofessionals. Since none of them had previous teaching experience, and none of them had academic training in the field of education when first hired, a major focus of the program has been to develop training methods that will enable them to quickly become effective teachers.

The project has gradually adopted published curriculum materials but has found that in most cases the published teachers' guides are not useful to the paraprofessional staff. These guides seemed to be too wordy and to use "lingo" that did not mean much to the layman in education. Accordingly the project has had to develop very specific training in each curriculum area to cover the presentation skills needed for a paraprofessional to use the curriculum materials effectively.

THE TRAINING PROCESS: The project uses a modified micro-teach training method. The trainer (certified or specially trained staff) reviews a discussion guide explaining the teaching method to be used, and demonstrates it for the trainee (sometimes with children, on video tape, or by role playing). The reason behind the demonstration is that teaching skill seems to be most rapidly acquired by imitation. Both trainer and trainee then go over an observation form that will be used to record the examples of teachers using the behaviors being taught. Sometimes the trainee uses this observation form to record behavior shown them by the trainer in the demonstration. This method enables both to see if they understand what specific actions the trainer will be looking for when the trainee is asked to use the teaching skills.

After the demonstration the trainee works with her own group of children trying to put into action the skills relating to that unit. An observation time is scheduled and the trainer records the teaching interaction used by the trainee. Later a

Trainer Lynn Morrison (Moses Lake) demonstrates teaching skill used in Sullivan Reading program with child, as teacher trainee Lucy Garibay observes.

conference is held with the trainee--usually the same day--to give feedback on what the trainee did that was correct or incorrect and suggestions of changes to work on for the second observation.

At least two observations are carried out, even if the first one reveals nearly perfect ability to use the teaching skills. This is because the trainer will want to see if these skills can be used consistently. More than two observations may be required if there are a number of teaching skills that need shaping up--more than a trainee could work on all at once. (Normally the trainer makes no more than two suggestions of change to the trainee, avoiding what has been called "paralysis of analysis" when the trainee has too many things to think about at once.)

The completion of training is filling out a "checklist." This is a listing of the key teaching skills and is marked plus or minus by the trainer indicating that the trainee is consistently able to demonstrate this teaching skill. Usually a 75% criterion is set for a checklist in order to consider a training unit passed, although on some checklists there are items rated as "mandatory"--must pass before the unit can be considered finished. If the trainer finds less than 75% or some of the mandatory items not acceptable, further training and another observation are carried out until the checklist is passed. In other words, there is no such thing as failing to pass, as mastery performance is expected and the training continues until this is achieved.

The process takes approximately two months per training unit (this time schedule takes into account the practice time needed by the trainee, and the necessity by the trainer to supervise approximately eight or more trainees). Sometimes training can be carried out with group presentations (a new unit that no trainee has had for example). More often a trainer works with one or two trainees at a time since new trainees are usually hired one at a time as needed and must receive the entire training sequence.

To insure that the skills are maintained after initial training, monitoring observations are also carried out. In some of these the trainer uses video tape to record the presentation, and the trainee and trainer then each fill out the observation on the performance to see if the trainee recognizes the key behaviors and can critique his/her own performance. Other monitoring observations take timed data (Dual Language Teaching and the MALTO--referred to in the process objective for the instructional component are monitoring instruments that use timed data). These aspects of the training are not part of the timetable for in-service training included under this project goal, however.

Trainer, Geneva Enriquez, video tapes a lesson of an experienced teacher to be reviewed by both teacher and trainer at a later time. Both will record data about the interaction, using it as a review of a training unit completed at an earlier date.

Trainer pointing out some aspect of the teaching interaction to experienced teacher-trainee Jesusa Benavides. About 90% of reviews are to point out and reinforce teaching actions that are done very well.

THE RESULTS: During the 1975-76 program year 32 paraprofessional teachers were included in the in-service training program (supervised by three trainers). Of these, 30 (94%) who were in the program for at least three months during the year completed one or more in-service training units with a passing grade on the checklist. This more than meets the project goal (of 90%).

The effectiveness of the staff trained can be judged by the outstanding educational gains recorded by the children they serve, which are documented in the instructional component section of this evaluation.

STAFF TRAINING COMPONENT

GOAL 2. FULL-TIME STAFF WILL CONTINUE ACADEMIC TRAINING.

THE NEED: Teaching staff for this program must be bilingual. In addition preference is given to adults who are or have been migrant farm workers. Only two of the present teaching staff of 34 were not ever migrants themselves. Both of these grew up in families that were migrant, however.

No specific level of academic preparation is required for teacher trainees. However, the parent/community advisory group, which screens and recommends all teachers for employment may give preference based on academic background, and the mobile program in Texas has established that preference will be given applicants who have finished high school or even started college. The two, year-round programs in Washington State have not used academic background as a criteria for preference. All three permanent sites, however, have established the rule that the applicant must be willing to continue his/her academic training after being employed.

The 34 teachers employed during the 1975-76 school year had completed schooling as follows:

Finished high school:	13	(38%)	50%
Completed GED:	4	(12%)	
Tenth grade or above:	6	(18%)	50%
Ninth grade or below:	8	(24%)	
Unreported	3	(8%)	

Among the four who had completed their GED, three did it through this program rather than prior to employment. None of the teachers employed by the program had finished college; in fact only a few were reported to have had some college prior to employment.

THE TRAINING APPROACH: The project manager works with the trainers and site coordinators to locate teachers who will work on-site with trainees needing to complete their high school education by passing the GED. In general the project has not had to pay for these teachers, other resources being available through the community. In some cases, however, some payment has been made with project funds.

At Moses Lake, during this past year, a GED instructor came to the center three or four times a week after the pre-school children were down for naps and before the tutoring started with the school-age children. Staff worked on GED preparation during this time.

At Connell for a time a teacher came to the center and worked with staff, mainly after work in the afternoon. Several arrangements made for GED classes through other agencies fell through at Connell so that progress was uneven, although one teacher did complete her GED during the past year through program help.

In addition to the GED trianing, nearly all teaching staff are enrolled for college courses through Columbia Basin Community College. The content of these courses is worked out by the project manager who presents a course outline which is approved by the college. Course materials are assembled and sent to the sites and the trainers work with the teachers on completion of their college work, in addition to the in-service training. Often staff will enroll for two classes per quarter and out of the present staff, seven have received their one-year certificate based on 45 quarter credits of work. Four are nearly ready to complete their second year of college work for an associate of arts degree.

It is possible for trainees who have not finished high school to take college courses and receive credit up to one year. Beyond the one-year certificate it is required that the enrollee have completed high school or a GED if credit is to be given for college work.

In the second year college program it is required that some courses be taught by teachers selected by the college although, with program support, these teachers may be brought on site. In the past, work on the college courses has been done wherever the teachers are located--including the mobile component teachers who move on an interstate basis. The requirements of the college concerning the operation of this program have changed somewhat in the course of operation, and are under review for possible further changes. Overall, however, it is a first

rate example of the "college without walls" concept with very real course content and evaluation of academic progress in the early education field.

THE RESULTS: The criteria established for this goal was that at least 80% of full-time staff would continue their academic education through either college work or work on their GED. The following table reports on enrollment in academic programs, which meets and exceeds the project goal.

TABLE 1. NUMBER AND PERCENTAGE OF FULL-TIME STAFF CONTINUING ACADEMIC TRAINING

	Number	Continued Academic
Administrative (Educ. Director, 2 Site Coordinators, Secretary)	4	2 (50%)
Training (Resource Trainer, 3 Teacher Trainers)	4	3 (75%)
Teacher Trainees	34	29 (85%)
Totals and % Continuing	42	34 (81%)

TRAINING COMPONENT

PROCESS OBJECTIVE 1. RATE OF IN-SERVICE TRAINING PROGRESS.

GOAL 2.1: Teacher trainers will provide in-service training continuously, at a rate which will enable at least 80% of the teachers to complete a training unit satisfactorily on the average of one for every two months of active employment.

ACHIEVEMENT CRITERIA: Of teachers employed for three months or longer, at least 80% will complete units of training at a rate that meets or exceeds the "expected" progress based on an average of one for every two months active employment.

PROGRESS REPORT: Out of 32 teachers who had been in the program three months or longer during the 1975-76 program year, 25 had completed at least one training unit for each two months of active employment. This is 78%, just short of the 80% project goal.

Out of the 25 teachers who met the training goal (one unit every two months) 15 actually exceeded the goal with more than the required number of units. Overall a total of 153 training units were completed, whereas 125 were required to meet the project goal.

Conclusion: A very substantial and consistent in-service training program was implemented, although the actual percentage of teachers meeting the rate of training goal was 78% rather than 80% set as a criteria.

PROCESS OBJECTIVE 2. PROJECT STAFF ARRANGES ACADEMIC OPPORTUNITIES.

GOAL 2.2: Administrative staff will arrange academic training opportunities for both professional and paraprofessional staff, and provide counseling and enabling services to facilitate on-going academic training.

ACHIEVEMENT CRITERIA: Examination of the evidence provided of how the above activities were carried out.

PROGRESS REPORT: The project manager has provided the evaluator periodic oral reports on the progress of arranging for college and GED opportunities. In addition she has provided a complete roster of staff with the names and course credits received to date, which has been updated with each new quarter's enrollment. This objective is being conscientiously and creatively met, in the judgment of the evaluator.

PARENT AND COMMUNITY INVOLVEMENT COMPONENT

GOAL 1. FAMILY MEMBERS PARTICIPATE IN CHILDREN'S EDUCATION.

THE NEED: A number of education studies have by now shown that maximum benefits for children can be obtained only through the combined efforts of the child's family and the school. Family, as used in this program, means the child's extended family of grandparents, godparents, aunts and uncles, etc., in addition to the nuclear parent family. The children served belong to a culture in which this is the meaning of family. As most families have never felt comfortable enough with schools in the past to take an active part in their child's education, the program has had to structure ways in which families can participate, and solicit their involvement.

In addition to volunteer involvement, this program uses family as the paid teachers of the children. In the mobile component this reliance on family members was a necessity--the adults in the family of a moving migrant child are the only consistent adults in his environment and must be the means of providing continuity in his education from one site to another. Other programs have tried, and failed, to staff with professional teachers for such a mobile program. In general the teachers found the conditions too hard--overcrowded areas lacking housing in the north where the migrants move, the need to have their own children change schools in mid-year, inconvenient teaching space in temporary locations, etc. Professional bilingual staff is too much in demand to be willing to take work under these conditions.

Attempts to use young people dedicated to giving a service, such as VISTA workers, also failed. Few VISTA volunteers come out of bilingual, bicultural backgrounds needed for teachers of bilingual migrant children.

Housing is always a critical problem in serving migrants as most housing in use areas is reserved for workers. Since our teachers represent in most cases one worker out of a family where others are still in the fields, the housing has been grower provided and has not been a critical issue.

In the year-round centers in Washington State it has proved equally important to use family members as staff. The area served is in the "Columbia Basin" of Washington State. Irrigation opened this rich area up to farming not too many years ago, and brought migrants into the area to handle the crops. The building of storage facilities and processing plants has made it possible for many migrants to stay. When the field work is over they can often find work many more months of the year in the processing plants. With work available 10 or 11 months out of the year, many have settled out. Since this population group came to the area as semi-skilled or unskilled farm labor, relatively few members have been able to take advantage of their improved economic status to go on to school and prepare for professional careers. Every school in the area is faced with a severe shortage of teachers who represent the ethnic background of the large numbers of Spanish speaking, bicultural children now enrolled in the schools.

The available resource is the paraprofessional adult who is bilingual, bicultural. Rather than waiting until the professional supply of teachers meets the need, this program elected to recruit the paraprofessionals--and by the training methods described under the staff training component, to assist them to move toward a professional status at the same time they teach. The focus of the program, as implied in the title "Training Migrant Paraprofessionals in the Bilingual Mini Head Start" was to select, modify, and field test curriculum and training materials that would enable staff with this background to provide a quality educational service for children. Their success is evident in the evaluation of the instructional objectives which were reported in the first section of this report.

THE INVOLVEMENT APPROACH: Every center site has a parent/community advisory group and one of the functions of this group is the screening and recommendation of teaching staff. In Texas the group incorporated so that they have besides general membership a five-member board. This five-member board, meeting with the

Educational Director and Site Coordinator, makes personnel decisions for the Texas program. The northern center advisory committees choose a personnel committee. The site coordinator and center trainer serve on this committee and the balance of other members (the majority on the committee) are the parent members. Although technically the Board of Educational Service District 104 retains final responsibility for all hiring, in practice the recommendation of the screening committees has always been followed in the selection of staff.

The exception to the above process of selecting the family members who will have paid positions is in staff provided by CETA or other manpower programs. In these programs the project is sometimes allowed some preferences among candidates for employment (and can specify such requirements as that the person be bilingual) but assignment is made by the manpower program on the basis of their own guidelines. Some trainees provided by these manpower programs have later applied for permanent jobs and have been approved by the personnel committees for the different centers. In the areas served by this program most of the people applying for manpower programs come from the same "target" population as that served by this program, so that acceptance of manpower trainees has not meant departing substantially from the priority for staff who were former migrants.

The primary way in which the project involves parents on a volunteer basis to participate in the children's educational program is through something called "Family Fun Night." The teachers and trainer for each center plan game type activities which parents can do with their children and which have an educational focus. The atmosphere is rather like a carnival with teachers stationed at different locations with various activities and families moving about from one to the next. Most of the activities were designed so they could be easily replicated from materials in the home and there is informal evidence that games of this type have been used in the homes subsequent to their introduction at a family fun night. Several family fun nights may be held during the year.

Family Fun Night at LaGrulla, Texas. Children and adults participate together in educational games. Over 110 adults participated in family fun nights held at the three center sites in the past year.

Some family members also assist teachers or volunteer as substitutes in the classrooms. The procedure for enlisting and using this type of parent help is more fully described in a later section which deals with all the many ways parents and community members assist the program.

THE RESULTS: Required to meet this goal is participation by family members equal to one-third the enrollment capacity of each center. (This is an arbitrary standard, the chief advantage of which is that it has been applied to this objective for a number of years, allowing the project to compare participation trends over years). The evaluator receives the following documentation of participation which is summarized for this report: family fun night rosters, copies or summaries of vouchers turned in by volunteer helpers at the centers, a summary of staff who are family members of children in the program. The number and percentage participation by center and by the type of help given is shown below in Table 2.

TABLE 2. Family Members Participate in Educational Program

	Moses Lake	Connell	Grulla
Family Fun Night[1]	20	11[2]	83
Paid staff[3]	8	4	10
Volunteer helper	9	13	8
Total	37	28	101
% of enrollment capacity	62%	47%	113%
Meets goal?	Yes	Yes	Yes

[1]Also includes volunteers who helped with cultural heritage night programs.

[2]Rosters of some family fun nights at Connell were missing so this report is incomplete.

[3]Includes only staff related to children presently enrolled. Some others have children who have now graduated from the program.

TO SUMMARIZE THE FINDINGS OF TABLE 2:

1. ALL THREE SITES HAD LARGE PARTICIPATION BY FAMILY MEMBERS IN THEIR CHILDREN'S EDUCATION, FAR EXCEEDING THE PROJECT GOAL.
2. THE INTRODUCTION OF THE FAMILY FUN NIGHT PROGRAM WAS PARTICULARLY EFFECTIVE IN TEXAS (WHICH HAD IN PREVIOUS YEARS NOT MET THIS PARTICULAR GOAL IN NUMBERS PARTICIPATING, AND THIS YEAR FAR EXCEEDED IT).

PARENT AND COMMUNITY INVOLVEMENT COMPONENT

GOAL 2. FAMILIES PARTICIPATE IN PROGRAM MANAGEMENT.

THE NEED: From the outset the program has operated on the principle that in order to maintain program operations to best meet the needs of the participants, and integrate the resources of the community, families and community members need to be involved in program decision making.

THE INVOLVEMENT PROCESS: There is an organized parent/community advisory group at each site. The northern sites (Moses Lake and Connell, Washington) are open to all parents who then elect officers as well as official representatives of the community. The Texas site formed a corporation, the "La Grulla Migrant Coop." They felt that with incorporation the parent group might choose to apply for grant funds for related programs. The Texas group is also open to all parents as voting members and the parents then elect an official board of directors. This five-man board selects personnel and makes business decisions affecting the group. During the mobile phase when people are scattered around the country, if official business needs to be taken up the Educational Director and/or site coordinator for the Texas site contacts members by telephone and business is conducted in this manner. In addition to the five-member board, however, the Texas site holds general meetings for parents to discuss center operations, proposals, etc. New proposals usually come up for consideration during the time the project is in the north. In order to have parents review the proposal and make suggestions the site/coordinator holds a series of meetings at the labor camps or at the centers where our children are served.

In order for parents to have information on the project from which to make decisions all staff report to the parent groups. Each evaluation is submitted to parent/community advisory group for review. The trainer and some teachers as well as the site coordinator usually attend all meetings to report on how the program is doing. Usually once or twice during the year some teachers will do a curriculum demonstration

Parent/Community Advisory Group meeting at Connell, Washington, February, 1976. Parents hold outline of proposed changes in program under consideration for Title VII and URRD proposals in preparation. Decision made to add spelling to curriculum for school age children.

for the parents, and sometimes videotaped lessons are shown. The project manager is responsible for submitting outlines of plans that would go into proposals for advisory group decision prior to submission of any proposal.

THE RESULTS: The project goal specifies that each site shall take action in at least four out of six specified areas in which program decisions must be made. The following references to minutes from the 1975-76 program year indicate the parent/community advisory groups in Connell and Moses Lake were active in all six areas, and the Texas and mobile sites active in five. This year the Texas site did not appoint a committee of parents to evaluate the program, that being the one area in which there was no action. A perspective view by the evaluator

is that the participation in management decisions has grown each year of program operation and that the past year saw more, and more varied, action by parents and other members of the extended family, plus community members elected to serve on these boards, than ever before.

TABLE 3. Content Analysis of Minutes of Advisory Boards

The following references were taken from minutes of meetings by Parent/Community Advisory Boards. During the 1975-76 program year there were ten parent/community advisory group meetings from each of the three sites, plus eight special meetings (personnel, executive committee, ad hoc committees on formation of bylaws) at which business was conducted. In addition, parent evaluation was carried out at two sites with the submission of written evaluation reports.

The following listing is a selection of references from minutes (or evaluation documents) of action that fits areas named in the project goal.

GRULLA	CONNELL	MOSES LAKE
A. Organizational matters and parent activities:		
11/75 Appoint acting committee member 12/75 Approve new member for Co-op Board	7/75 Orient new officers to their jobs 7/75 Plan raffle of pinata 2/76 Discuss by-laws, extending membership to any in extended family	7/75 Plan election 8/75 Election of officers 11/75 Appoint new vice president 2/76 By-laws discussed 3/76 Vote in community members to board 6/76 Plan school picnic
B. Review proposals:		
2/76 Discuss new proposal (45 parents present)	12/75 Discuss Title I proposal 2/76 Discuss URRD proposal and Title VII proposal	2/76 Discuss URRD proposal and Title VII proposal
C. Personnel actions:		
10/75 Discuss hiring secretary and several teachers 11/75 Discuss CETA and manpower staff	11/75 Interview and recommend staff to be hired 2/76 Interview and recommend hiring	7/75 Interview and recommend hiring for immediate openings, order of preference for future openings (Note: All staff recommended were eventually hired)

3/76 Interview and recommend hiring (Note: All staff recommended were hired)

D. Use of parent funds:

10/75 Recommend transfer of accounts for funds
4/76 Approve $150 emergency loan from fund

1/76 Authorize use of funds for materials and cabinets for program

9/75 Authorize funds for car repair
11/75 Authorize buying lamp and Christmas gifts
1/76 Purchase pictures

E. Setting hours, curriculum, decisions regarding operations:

8/75 (Prosser, WA) Set hours for Prosser Center. Discuss need for center at Dayton, WA. Bussing problems for school kids
12/75 (Grulla, TX) Presentation by two teachers demonstrating curriculum, discussion of curriculum
1/76 (Grulla, TX) Plan Family Fun Night educ. activities
5/76 (Eltopia, WA) Discuss bussing kids
5/76 (Kahlotus, WA) Discuss bussing--why center located Basin City
5/76 (Basin City, WA) Bus schedule, discuss program

9/75 Discuss hours
1/76 Discuss importance of children learning to languages, like take-homes, discuss curriculum
2/76 Request that spelling be added to curriculum

1/75 Discuss eligibility forms
1/76 Discuss math and reading program
2/76 Approve adding reading in Spanish to curriculum
6/76 Teacher demonstrates Distar English and Spanish
Discuss language curriculum

F. Participate in program evaluation:

11/75 Trainer reviewed project evaluation and group discussed
2/76 Parent volunteers did independent visits to classrooms and completed evaluations

2/76 Selected members to do evaluations
3/76 Several parents visited program, seeing each curriculum being taught and completed detailed evaluations with recommendations

PARENT COMMUNITY INVOLVEMENT COMPONENT

GOAL 3. COMMUNITY MEMBERS CONTRIBUTE SUPPORT TO THE PROGRAM

THE NEED: This objective refers to help with the program other than participating in the educational program, which was described earlier. Helping out in the kitchen, making storage shelves, doing repairs, developing play areas, program laundry, making costumes for the children, preparing food for special meetings, etc. The program has always had very limited funds in the area of facilities and equipment and this type of program assistance has extended our resources.

Parents mending fence by center,
La Grulla, Texas, February 1976.

THE INVOLVEMENT PROCESS: The project utilizes a voucher system whereby parents or community members assisting with the program (with support services or with the educational services described earlier) can submit a voucher outlining the hours and the kind of help given. These vouchers earn $2 an hour, not for the donor, but to go to the parent community advisory group of that center. In this way each parent group has developed a treasury (other means of money raising also go into their treasury) which they decide the use of in parent meetings. There are no restrictions placed by the program on use of this money once it has been earned by the parent group. At Moses

Lake, for example, it has been used to make loans to members in serious need--to buy food stamps, pay a medical bill, or buy insurance to enable a member to use a car which will enable him to work. All such loans have been fully repaid to the parent group. The groups have also bought equipment for the centers for which there was a need and no other budget. Most of the parent fund money earned in Texas has been saved anticipating that it may be used to remodel a school facility for community use when the public school abandons a building they are now using. The "parent fund" voucher system thereby serves a dual purpose. It provides incentive for involvement of family in the program. It provides resources which the parent group can use so that their meetings frequently revolve around business involving these funds. Some parent advisory groups established in other programs because of a federal requirement dwindle from lack of interest because the group has no actual management decisions to make, and no resources. The parent fund provides resources which have enabled the parent group in this program to organize many efforts of benefit to themselves and the program, and the groups have had active participation because a number of areas of decision making are left to the parent group.

THE RESULTS: The following table shows number (and percentage of enrollment capacity at that site) of family or community members who have helped with "support" type activities (as distinguished from help with the educational program already reported). All of those reported were from vouchers turned into the parent fund. To the evaluator it is clear that this is an underestimation of actual help received by the centers because of the limited base of reporting. For example, in Texas, a great deal of help was given the center by community members who were temporarily working under the manpower program or neighborhood youth corps. The project received the free benefit of these services--did not need to recruit the volunteers it otherwise might have--but this kind of participation was not eligible for the voucher system payment for volunteers.

The Washington State centers also benefited this past year from similar community resources (e.g., assistance from participants of a child development class at the high school who provided hours of assistance) but are not reported here.

TABLE 4. Support Services Provided by Family and Community

	Moses Lake	Connell	Grulla
Individuals participating	17	34	7
% of enrollment capacity	28%	57%	8%
Meets project goal of 25%?	Yes	Yes	No

PARENT AND COMMUNITY INVOLVEMENT COMPONENT

GOAL 4. PARENTS PARTICIPATE IN PROGRAM EVALUATION.

THE NEED: In the first years of operation, staff tried to get input from parents on their satisfaction with the program by making a request for comments at a scheduled parent meeting. This suffered from the defect that parents at the meeting often had not visited the program during the day and did not have much information about its daily operation upon which to base their comment, so the comments were very unspecific. To attempt to secure real involvement by parents in program evaluation the program adopted the procedures described below.

THE INVOLVEMENT APPROACH: Each parent/community advisory board is invited to appoint a committee for program evaluation. A form, in Spanish and in English, is given to these evaluators in which they are asked to observe each subject area being taught and give us their comments, in writing. Usually a time is set when the evaluation committee visits the center and the trainer or a teacher shows them the curriculum being used and explains why the teachers use the methods they do. The parents then visit around in classes and fill out the evaluation form which is mailed to the project evaluator.

In addition, each published evaluation written on the program is sent to the president of each of the advisory committees and a request is made that the president comment on the evaluation by letter. If the group requests, some staff person makes a presentation on the published evaluations before the parent group.

In this way the project attempts to provide information about the program regularly to the parent/community advisory group, as well as structuring a time and place to be sure that their comments and suggestions are heard.

THE RESULTS: The evaluator has a number of evaluations on the program which were submitted by parents at Moses Lake and at Connell. The Texas program appointed an evaluation committee

but circumstances forced a change in plans and the evaluation was not carried out in Texas this year.

In addition the evaluator has letters received from the chairmen of the parent/advisory groups in response to published evaluations which were sent for review. A copy of the letter received from the President of the Connell Parent Advisory Committee upon receipt of the mid-year evaluations commenting specifically on several aspects of the program follows.

January 15, 1976

Dear Mrs. Gustafson,

I have been asked to read and evaluate "Training Migrant Paraprofessionals in Bilingual Mini Head Start" and "Bilingual Mini-School Tutoring Project." I found both books interesting and of value to me to better understanding the program.

First, as a parent, I would like to compliment the program here in Connell. Jeanne Enriquez, the director, and of course all of the teachers, and parents. I am a single, working mother, and never did I believe such a "help" to me and my child existed until I moved to Connell. My daughter has become dependent on Mini Head Start, and looks forward to each day of learning new and different things, especially to become bi-lingual. I am sure all parents would agree with me that they are proud of the daily progress their children make as they work, learn, and play.

Although I am not a Mexican-American, I was married to one. My daughter finds pride in her heritage, even at the age of 4-1/2--and constantly wants to learn Spanish so she can communicate with friends and relatives, now and when she grows older. I also believe this holds true for the Mexican-American child in learning English so that he is not "native" in his own country.

For several years I have worked with and around migrant people, in fact I was a migrant aide for the Kahlotus School District during Green Giant's asparagus season for two years. I realize and know why such a program as this is important. I knew of children who had been in several places that same year. Upon return the following year I hardly saw any progress. I am sure they experience extreme frustration and failure. Such a program as this not only creates stability for a "mobile" child, but also for ones such as mine who are alone daily because their single parents work. Speaking for myself, I know my daughter loves her teachers.

I see a real importance in educating parents as to why this program is extremely necessary for children such as those in Mini-Head Start programs across the United States. The idea to train parents as teachers was marvelous. You can really see parents experience a sense of pride on family fun nights when they help their children cut felt objects, make piñatas, create play-dough "things," etc. I really think that the wheels are sometimes turned in reverse, and the child trains the parent.

In closing, I can only say that I am extremely proud of being a part of this program and that it continues for as long as possible. I only wish others could experience the gratitude and satisfaction I have.

Thank you for wanting my opinion and letting me and my child be a part of this.

Katie Saldaña
President-Connell
Mini-Head Start

PARENT AND COMMUNITY INVOLVEMENT

PROCESS OBJECTIVE 1. STAFF SOLICITS INVOLVEMENT OF FAMILY MEMBERS.

GOAL 3.1: Project staff will solicit the involvement of family and other community members in the educational program and in providing other types of program support.

ACHIEVEMENT CRITERIA: The project manager will summarize efforts made by project coordinators (from weekly reports) and by the project coordinators (from weekly reports) and by the educational director and trainers (from site visit and telephone contact) to develop community and parental involvement in memo form to the evaluator. From this evidence the evaluator will make a judgment as to whether the effort appears to be substantial and supported by evidence--if so, the goal is considered met.

PROGRESS REPORT: The project manager has provided summaries or original documents from all staff maintaining parent and community contacts, documenting that substantial effort has gone into soliciting involvement.

PROCESS OBJECTIVE 2. STAFF REPORTS TO PARENT ADVISORY BOARDS.

GOAL 3.2: Project staff will provide parent/community advisory groups with the information needed to participate in program decisions by attending and making reports to the boards at monthly meetings, and by submission of review of project proposals and of all program evaluation reports.

ACHIEVEMENT CRITERIA: One or more staff members reported as attending every parent/community advisory board meeting, and reports by these staff members occurring regularly on various aspects of program operation (three or four times a year). Evidence from minutes or from covering letters to officers of submission of evaluation reports and proposal outlines for review.

PROGRESS REPORT: The list of those attending parent/community advisory board meetings confirms regular attendance by staff, and content analysis reported elsewhere in this evaluation shows periodic reports on various aspects of the program. Carbons of transmission letters and responses from officers of the advisory groups indicate regular submission of published reports to the advisory groups for their consideration.

MATERIALS DEVELOPMENT COMPONENT (End-of-Year Progress Report)

GOAL 4.1 Project Manager publishes translation of DISTAR language materials in Spanish which have been developed by the program. (Completion by 4/76)

FINDINGS: The materials translated by the project were set aside and not published because the project preferred to use the new edition when its Spanish translation becomes available.

The new edition materials are being translated by a private agency and the project has secured rights to field test them as the become available.

By the end of the program year the first 30 (out of 160 lessons) was in use and it is expected the full series will be in use by the end of 1976.

GOAL 4.2: Project publishes at least six new units of teacher training materials, each unit including (a) a training guide with discussion questions, (b) a guide for trainers to possible answers to discussion questions, (c) observation instrument, (d) checklist with criteria for satisfactory completion of unit.

FINDINGS: The project resource trainer has developed an orientation training unit which covers briefly all curriculum areas as well as the other responsibilities teachers have for such things as making reports, etc.

A two-unit series of training units in math has been developed: one a quiz type unit on knowledge of math concepts and the other a performance type unit on teaching skills for the math curriculum.

A unit on the use of a token reinforcement system and utilization of backup activities has been completed.

A two-unit series of training on use of the handwriting curriculum was completed and two units on Sullivan Reading.

As the goal was completion of six new training units, the goal is considered to have been met.

GOAL 4.3: Project publishes achievement test to go with new handwriting curriculum. (Completion by 10/75)

FINDINGS: The handwriting achievement test was first published in July 1975. It was tried out in the Washington sites, revised, and published in final form in October 1975. The evaluator conducted training for all testing staff at each site, and the test is now in use.

GOAL 4.4: Project publishes implementation checklist forms (described in Instructional Goal H1.1).

FINDINGS: A preliminary version of the implementation checklist form was published, tried out, and found in need of further revision. This goal was therefore not met within the time guidelines.

GOAL 4.5: Project publishes at least two trainer-training units, one on project curriculum, and one on project teaching procedures, to be used in orienting new training staff.

FINDINGS: The Resource Trainer developed the trainer-training unit on project teaching procedures and it was in use by May, 1976.

The second training trainer unit was in preparation at the end of the program year, and it is expected to be completed by October, 1976.

GOAL 4.6: Project will publish cultural heritage test (described in Instructional Objective 1.7).

A 44-item cultural heritage test called the BMHS Test of Cultural Concepts has been published.

The Project Educational Director in consultation with teaching staff identified six areas of cultural knowledge he felt appropriate for children as young as those in this project. These were: clothing, food, dances or musical games, songs, holidays or celebrations, and national symbols. (Heroes associated with a culture and historical events were considered too abstract for the age level served, although such items frequently are included on tests related to culture used with older children.)

Teachers suggested the content items: e.g., typical clothing items related to U.S. culture were blue jeans, tennis shoes, etc., and clothing items of Mexican culture were poncho, huaraches. Typical food items U.S. culture, hot dog, cherry pie, turkey, etc., and Mexican culture, arroz con pollo, cabrito, taco, etc. Of holidays, Halloween was one selected as typical of U.S., La Posada as typical of Mexico. Flags of both countries were used for symbols and songs included De Colores, Las Mañanitas, etc., as well as Jingle Bells, Yankee Doodle, etc. The Hokey Pokey was considered a typical dance in U.S. culture, La Raspa and La Bamba typical of Mexican culture. In all 44 items were selected representing the six areas. A set of drawings was made including many incorrect choices--17 plates with 68 drawings in all. To the word cue the child was asked to select from four pictures the one that fit. For the song and dance items, a casette tape with a few bars of the song or the music for the dance was played as a cue, and again the child was asked to select the pictures that fit.

Technical Appendix B gives further information on the test and the field testing that has been done to determine reliability. In general the reliability of the overall test is very high for a project developed instrument--.90 by Kuder Richardson 20 formula for test reliability.

GOAL 4.7: Project will publish dissemination material for newspaper or magazine publication, and for sending to other sites requesting materials.

FINDINGS: The project manager developed two publications about the project--its rationale, approach, and accomplishments--which have been given wide distribution. These have been Xeroxed for use in responding to inquiries about the program.

ERIC Clearing House examined project evaluations and decided these were of sufficient interest to a wider audience that the entire series is being put on microfiche for nationwide distribution. It also decided to publish some of the Mexican cultural heritage materials produced by the program. The ERIC numbers of project publications thus far on the network are:

ED114222 (Final Evaluation 1974-75 Program Year)
ED114223 (Mexican Cultural Heritage Materials for Preschool Children)
ED116875 (Bilingual Mini-School Tutoring Project Evaluation, Progress Report No. 4, Final Evaluation, Program Year 2)
ED116866 (Training Migrant Paraprofessionals in the Bilingual Mini Head Start, April 1972)
ED116867 (Training Migrant Paraprofessionals in the Bilingual Mini-Head Start, February 1973)
ED116868 (Training Migrant Paraprofessionals in Bilingual Mini Head Start, Mid-Year Evaluation, 1974-75 Program Year)
ED116869 (Evaluation of Progress in Bilingual Mini Head Start, October 1972)
ED116870 (Evaluation of Progress in Bilingual Mini Head Start, November 1973)
ED116871 (Evaluation of Progress in Bilingual Mini Head Start, Final Evaluation, 1973-74 Program Year)
ED116872 (Bilingual Mini-School Tutoring Project, Evaluation Progress Report No. 1, March 1972)
ED116873 (Bilingual Mini-School Tutoring Project, Evaluation Progress Report No. 2, Final Evaluation Program Year 1)
ED116874 (Bilingual Mini-School Tutoring Project Evaluation Report No. 3, Mid-Year Evaluation, Program Year 2)

Rafael Guerra, Educational Director, and Rob Robinson, Resource Trainer, went to Dallas in November 1975 where they were invited to describe the program's educational approach before a national audience attending the National Association for the Education of Young Children.

Louise Gustafson, Project Manager, appeared as a panelist for the Washington Association for the Education of Speakers of Other Languages conference in Seattle, Washington, October 25, 1976. In addition to her presentation, she prepared and distributed flyers of information about the project.

Louise Gustafson, Project Manager, also presented the project before the Association for Supervision and Curriculum Development in Spokane, Washington in February 1976.

Irma Balli (mother of a project child and translator for project program materials) gave a presentation in New York City before the national board of the YWCA (of which she is a member) and distributed about 200 two-page program descriptors specially prepared for this presentation by the evaluator.

Beverly McConnell, project evaluator, presented findings and methods of educational research utilized in the project before the Northwest Committee for Applied Research in Portland, Oregon, in March 1976.

In summary, the project has very extensively presented project findings before both local and national audiences, and produced a wide range of publications during this fifth year of program operation.

MANAGEMENT COMPONENT

GOAL 1. THE PROGRAM WILL FOLLOW CHILDREN AS THEY MOVE.

THE NEED: In the mobile component children from La Grulla, Texas travel with their families to work locations in the north. As in most communities in which migrants winter, the northern migration is not ever done as a large block, all going to the same area. Some families sign contracts with growers and their moves are predictable in advance. Others go "free wheeling," obtaining employment at their destination, and their moves are subject to change on very short notice if there are rumors of housing shortage, poor crops, labor unrest, etc.

In the past efforts to follow children who move with the crops have had a very small percentage of success (the most successful rate of follow-up reported was 19%). This is because these moves did not have the flexibility to follow small numbers of children to isolated locations, and to adjust to changes in travel patterns arranged on short notice. The "Mini" in the title of this program refers to the organization of the mobile component of this project so it can follow children with a single teacher in a "mini center," thereby giving flexibility to go where the children go.

THE APPROACH USED: Teachers are trained in all subject areas instead of specializing, and are also trained across different age ranges so that if a teacher goes to an isolated area he/she will be able to teach the children at that location across the range of curriculum materials, preschool into school-age. Each curriculum used is to the maximum extent possible individualized so that children can work in their own materials at their own speed with the teacher rotating her attention from one to another.

Intensive initial training allows teachers to migrate to areas where they will receive only intermittent supervision and professional support. The project monitoring system, involving weekly reports and periodic independent testing of child progress, allows the program to effectively relate to teachers not in daily contact with one another.

In Grulla, the family travel patterns are surveyed in the fall, when new teaching staff is to be taken on. Based on anticipated numbers of children headed for different areas, an effort is made to recruit teachers from families anticipating moves to those areas. Another survey in the spring just before migration allows reassignment of staff. (If a family staff member must to to an area where there are an insufficient number of children from other families to form a mini center, the staff member takes temporary leave of absence for that period.) Through bussing, children are consolidated whenever possible so that at least two teachers can work together.

Many teachers have a group of preschool children to teach in the morning and these children are then taken care of for the remainder of the day by other temporary staff hired in the north. (Day care length days are necessary during the northern work phase). The teacher may then drive to a public school where children are allowed release time (often coming from more than one classroom or grade level) to continue the bilingual curriculum during the afternoon hours. Although such arrangements require cooperation and planning by the schools, most have been more than happy to assist stating their belief in the value of the educational continuity the program is providing. In three years operation of the school-age program, no school administration approached has refused cooperation. Because of the dispersion of children, in-school tutoring cannot be arranged in some cases, and the program then attempts to locate space in the labor camp and to offer the tutoring on an after-school basis.

There are usually three general moves during the work season. The first crops are spring crops and this lasts from April through June. There are mid-summer crops (mainly berries) that begin in June and last through July. The fall crops begin in August or September and may last until October or November. Some staff stay at one location through this series of crops--others are reassigned.

THE RESULTS: The achievement criteria set for this goal was that for every teacher who relocated north, at least five children (on the average) would be provided continuing service. During the 1975 migration each teacher served between nine and ten children on the average. Of the children served, 65 had been enrolled earlier in the year in Texas, and an additional 21 were children from La Grulla who were first enrolled in the program during the northern phase. There were nine teachers relocated in the mobile component--one to Illinois and the other eight to Washington State.

MANAGEMENT COMPONENT

GOAL 2. PROJECT STAFF WILL COORDINATE WITH OTHER EDUCATIONAL AGENCIES IN HOST COMMUNITIES.

THE NEED: The migrant child, wherever he may temporarily locate, is the responsibility of the local public school and this program limits itself strictly to a supplementary role for a limited period of time during the school day. Only during summer and if there is no special migrant summer school offered does this program become a sole provider of educational services. Although there is not the legal responsibility of a local agency in the case of preschool children, the same principle is followed during the northern phase. If a local day care or preschool program is available, children normally enroll in it and our teachers request a period of time to continue our curriculum, and then work under the administration of the local program assisting in whatever way they are requested to for the balance of the work day. This is not a program to segregate migrant children or supplant local service--only to provide a supplemental program during the child's migration which will enable him to have some continuity in his educational experience.

In order to work with the local educational agencies project staff must initiate coordinative contact in host communities, which is the purpose of this project goal.

THE APPROACH TO COORDINATION: Coordination is handled by the administrative or training staff. Whenever possible contact is made before the La Grulla children actually arrive. This enables a school district to place all La Grulla children in one school in some cases, which makes it easier to get the children together for group classes.

Normally the project explains the purpose of the contunity. The local agency is then asked to allow the children being followed release time for continued work in the bilingual curriculum under the mobile teachers. Schools are also usually asked to allow us the use of school space if any is available. For programs in which our teacher is then asked to work under

the local agency (school or preschool for the balance of the day) we also ask that time be allowed to continue training on days when the itinerant training staff is able to get to that site.

The project offers to share any of our materials and has frequently been asked, and has contributed to workshops sponsored by the local education agencies. Our educational director has frequently made presentations on migrant needs sponsored by state and regional agencies in addition to local requests. And our training staff has conducted workshops on our bicultural materials. In these ways coordination and cooperation is a two-way street.

THE RESULTS: This goal was reported on in the mid-year evaluation in that it covers the migration during 1975 (the 1976 season is still in progress at this writing and will be reported in the next evaluation).

The findings reported there were:

1. Coordination with other educational agencies providing services to either school-age or preschool age children to place at every site. (Sites of the 1975 northern phase were: Pasco, WA; Prosser, WA; Walla Walla, WA; Mabton, WA; Lynden, WA; Hoopeston, IL.)
2. All of the public school personnel contacted were very supportive of the concept of following children from one location to another with supplementary tutoring. Individually they have praised our curriculum and the professional skills of our paraprofessional mobile teachers, and have provided released time as well as school space to facilitate the program.

MANAGEMENT COMPONENT

GOAL 3. PROJECT WILL MONITOR FAR-FLUNG OPERATIONS.

THE NEED: The administration of this program is interstate; two year-round permanent sites in Washington State located 60 miles apart, and a winter site in La Grulla, Texas with instream temporary sites for the mobile component is six to eight different towns in two to four northern states. Project administrative staff is divided between Washington and Texas, and intermittent visits to operational sites is the operating norm.

The project needed to devise a monitoring system that would insure that children were making educational progress at all sites, that training was being carried out and that administrative requirements were being met at all sites. The following section outlines the procedures adopted to accomplish this.

THE MANAGEMENT APPROACH: All curriculum areas taught have been "tracked"--e.g., a sequence of learning tasks established within which weekly advancement can be recorded by teachers. These progress reports are mailed weekly to the evaluator where they are used both for evaluation purposes and for internal project monitoring. For example, if a child or several children appear to be "stuck," or makes an unusual jump or reversal of progress, the trainer or resource trainer is alerted to provide assistance to the teacher on how to teach that concept area to the group or how to provide appropriate special assistance to an individual child. These placement reports also are used to find the child's place in materials after an absence.

In addition, periodic testing is done by a trained paraprofessional tester (other than teaching staff) over material the teacher has reported the child has covered. If this reveals lack of mastery, again supervising staff attempts to assist the teacher in planning remediation and to monitor teaching performance to detect why children are not progressing in mastery.

Similarly the training staff mail weekly reports on in-service training and activities related to college work they are

supervising, which enables monitoring that the in-service training program is proceeding as scheduled. The actual observations and checklists from training are also forwarded to the evaluator which enables review of the trainer's evaluation of teaching performance. External check on the training occurs at least once a year when the resource trainer spends a week at the center completing a trainer skill review monitoring instrument. The resource trainer also checks reliability of the use of timed data observation instruments and forwards the reliability data to the evaluator.

Administrative contact is maintained by the project manager. Each site coordinator had a weekly contact report to make which are received by the project manager. The Educational Director prepares periodic reports on such items as coordinative contacts which the project manager is required to summarize for project evaluation. The project manager maintains telephone or site visit contact weekly throughout the year with administrative staff at each location.

These reporting procedures have enabled the project to monitor operations that are widely separated geographically assuring that the key elements of the program are being carried out, and enabling detection of program problems on an ongoing basis so that corrective action can be taken.

THE RESULTS: The evaluator has available for inspection weekly reports throughout the year from every teacher (or substitute) on each child's progress each week. In addition a file exists of reports from every trainer, and from the resource trainers of training functions carried out.

The project manager has submitted a log of telephone and site visit contact with each site indicating that this aspect of the program monitoring system was also carried out.

MANAGEMENT COMPONENT

GOAL 4. PROJECT COST ANALYSIS DATA WILL BE DEVELOPED.

THE NEED: The project has been accepted by the DRP panel of the Office of Education as having evidence of achieving success with children, and being worthy of diffusion to other districts looking for proven educational programs. One aspect missing was clear estimates of costs of the various components--both the developmental costs and the operating costs that would be incurred for a potential adopter. The project manager undertook to provide this analysis during the 1975-76 program year.

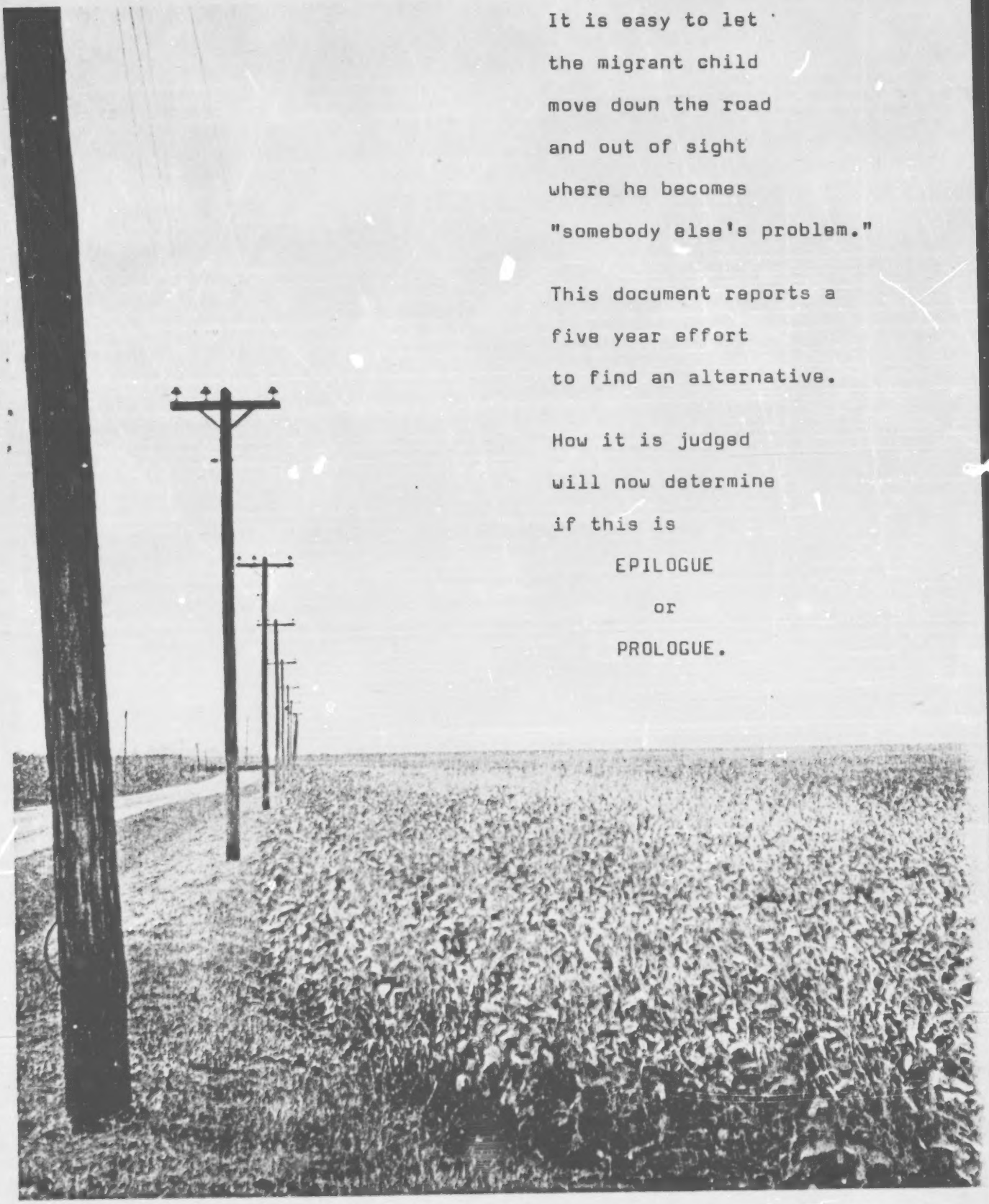
THE APPROACH: The Title VII budget was reduced to six component areas: Instruction, Staff Development, Materials Development, Evaluation, Management, and Parent Involvement costs. Personnel with responsibilities in more than one area have salaries divided between categories. Other costs were similarly divided relating to the function they provided. Totals for each area were then divided by the ADA attendance for the year and calculated as a percentage of the total Title Vii grant. (Note: Some funding sources have asked for data per enrollee. Because of turnover in any migrant project, this one included, enrollment is approximately three times the ADA. The ADA figure seemed the more meaningful of actual costs for another agency that would not expect such turnover.)

THE RESULTS: The goal was met insofar as the Title VII budget analysis is concerned.

Because of multiple funding, and the mixture of development costs with operating costs, this is an extremely complex project to do cost analysis for. In some essential services (basic support costs for teachers and operational costs of the mobile component) the project receives services rather than a budget so that cost data are not readily available.

This past year the project was made subject of a case study of an "outstanding example" of a project putting together various funding sources in support of a single target group. The national firm making the study professed great admiration for the availability of budget data from all sources and the ingenuity with which they had been blended together in the program. They also acknowledged that obtaining multiple funding and services from other agencies greatly increased the administrative burden. Preparation of multiple proposals, processing of separate grants, meeting the differing and often conflicting requirements of several granting agencies. providing evaluative and budget information and on-site feedback to multiple funding sources, are all involved when a grantee operates from several grants rather than within the confines of one single granting agency.

The project will need to continue to develop and refine its cost analysis data, both for the benefit of other agencies wishing to adopt all or part of the program model, and as documentation of the requirements imposed through multiple funding.



It is easy to let
the migrant child
move down the road
and out of sight
where he becomes
"somebody else's problem."

This document reports a
five year effort
to find an alternative.

How it is judged
will now determine
if this is

EPILOGUE

or

PROLOGUE.

TECHNICAL APPENDIX A

The main body of the final report was written for the general reader, and for clarity avoided technical detail. Since information on procedures for testing and data collection and explanatory footnotes for the analysis of test scores in the instructional component is of importance to a technical reader, that information has been reported here.

TESTING AND DATA COLLECTION

Independent testers are used at each site--e.g., instructional or supervisory staff does not do testing. All testers are paraprofessional bilingual Mexican-Americans. (95% of the children served are Mexican-American so this testing staff has cultural identity for the overwhelming majority of children being tested.)

Each tester is individually trained on each instrument and must demonstrate appropriate procedures in the testing of at least two children, under observation, as part of the training. Subsequent monitoring visits review testing procedures annually. Training and monitoring of testers is done by the evaluator and/or the resource trainer.

All children are pretested before attending the program for 30 days--in practice as soon as possible after their initial enrollment. This pretesting includes all of the instruments used in the evaluation appropriate to children of their age. It also includes the project achievement tests to help determine placement of children in project materials. Since children can and do enroll in every month during the school year, testing is continuously carried out.

Repeat testing on standardized test instruments is done after an individual child has attended for a period of 100 days, i.e., he is tested at 100, 200, 300, etc. days. Attendance data are kept individually for each child and at the end of each month a list is drawn up and forwarded to each site notifying the tester which children have passed a testing point and on which tests they are to be examined. Each month there are children who have passed a testing interval in their attendance, so this testing, too, is carried on throughout the year.

This testing schedule is more complicated than the usual evaluation procedure which calls for mass testing at two calendar points. However, mass testing with migrant children suffers from their mobility--i.e., children tested by the Texas Educational Agency on set calendar dates suffer almost a 50% loss (children not available for post-testing who were pretested) because of children moving away. Likewise there are children available at post-test time whose tests cannot be used because no pretests exist. It was felt that this project could not tolerate this kind of loss of information. In addition the irregularity of attendance between two fixed calendar dates when you are dealing with a migrant population, can be very substantial. For this reason the post-tests on calendar dates often do not begin to describe the period of actual attendance that has gone into any change in scores.

By adopting testing based on attendance the project has assured that when tests are grouped together, they represent a similar period of project intervention as would not be true with calendar date testing. Statistical significance is established for children of the same age who were (1) new to the project at that age, or (2) had attended for 200 or more days by that age. As the occurrance of a child being tested upon initial enrollment and after 200 days within the same age group is very slim, the two groups are truly independent of each other for purposes of statistical analysis of differences between the means.

The project is fortunate in having an enrollment policy that enables children of different ages to start the program, i.e., not all children have to start as three-year-olds although some do. Others start at four, five, six, or seven years of age. These new enrollees, for whom pretest scores are kept cumulatively, become a reasonable norm group to represent the probability level of performance without the project effect. The size of the norm groups is largest in the earlier ages because more children do begin the program while in preschool than start in school age years. However, for every age level a norm group of ten or more is available (and required) before statistical analysis is applied. (The only group for which norms are not available are English dominant children tested in reading. The project enrolls too few children who are English dominant to have acquired ten per age level in the norm groups at this writing. Reading scores are related to language dominance, in the evaluation design.)

All tests are rescored upon receipt and are available on permanent file for inspection by any interested party. Likewise, analysis worksheets are permanently retained and available for inspection or validation by any interested party.

FOOTNOTES ON ANALYSIS OF INSTRUCTIONAL OBJECTIVES

PRESCHOOL CONCEPTS

1.1 GOAL: Project children will show a significant superiority to the project norm group in their knowledge of preschool concepts as measured by the Cooperative Preschool Inventory.

ACHIEVEMENT CRITERIA: The goal is considered met if the children with 100 days attendance are superior to children of comparable age in the norm group, and if children with 200 or more days attendance are superior to children of comparable age in the norm group beyond the .05 level of significance.

Note, scores of both norm group (pretests taken within 30 days after initial enrollment) and attendance groups are cumulative of all tests given through the end of April, 1976.

TABLE 5. Wide Range Achievement Test, Math Subtest

Age Group	3.0-3.11	4.0-4.11	5.0-5.11
Norm Group*			
Number	92	68	18
Mean Raw Score	20.424	30.588	37.556
Standard Deviation	8.519	10.801	8.913
National Percentile	34%ile	37%ile	48%ile
100 Days Attendance			
Number	43	76	26
Mean Raw Score	25.000	35.829	44.192
Standard Deviation	8.437	8.050	11.118
National Percentile	53%ile	57%ile	69%ile
T (w/norm group)	2.966	3.315	2.105
df and Signif. Level	137 .005	142 .0005	42 .025
200+ Days Attendance			
Number	13	91	60
Mean Raw Score	30.077	39.549	46.367
Standard Deviation	6.291	9.598	7.295
National Percentile	69%ile	71%ile	75%ile
T (w/norm group)	3.926	5.942	4.242
df and Signif. Level	103 .0005	157 .0005	76 .0005

*Norm group always refers to children pretested upon initial enrollment, before they had attended 30 days.

GAINS IN SPANISH

1.2 GOAL: Project children for whom Spanish is the primary language will show a significant superiority in their comprehension of Spanish, as measured by Form B of the Peabody Picture Vocabulary Test, when compared to the norm group children of comparable age and language classification.

ACHIEVEMENT CRITERIA: Children with 100 days attendance will have a higher mean score than norm group children of comparable age, and children with 200 or more days attendance will be superior to children of comparable age in the norm group at the .05 level of statistical significance.

ANALYSIS 1: Cumulative scores through April, 1976. ANALYSIS 2: Scores just for the past 12 months up through April, 1976.

TABLE 6. Peabody Picture Vocabulary Test, Form B, in Spanish

Age Group	3.3-3.8	3.9-4.2	4.3-4.8	4.9-5.5	5.6-6.5
Norm Group					
Number	62	53	41	47	14
Mean raw score	21.516	25.283	27.683	34.277	39.214
Standard deviation	8.685	9.738	8.923	8.861	5.780
100 days attendance (cum. tests)					
Number	27	50	40	48	31
Mean raw score	25.593	29.540	29.675	37.500	42.935
Standard deviation	7.953	10.829	7.892	8.913	6.245
T (w/norm group)	2.091	2.097	1.067	1.770	1.898
df and sig. level*	87 .05	101 .025	129 .01	93 .05	43 .05
200+ attendance (cum. tests)					
Number	(3)	23	48	84	76
Mean raw score	(Too few	30.609	34.375	38.360	44.276
Standard deviation	for	7.121	7.668	8.171	6.963
T (w/norm group)	analysis)	2.366	3.815	2.675	3.413
df and sig. level		74 .05	87 .01	129 .01	88 .01
100 days attendance (5/75-4/76 only)					
Number	(4)	17	10	13	(6) Too
Mean raw score	(Too few	31.353	30.700	36.923	few for
Standard deviation	for analysis	10.000	8.957	8.693	analysis
200+ days attendance (5/75-4/76 only)					
Number	(2) Too	(7) Too	18	27	24
Mean raw score	few for	few for	32.444	36.222	43.833
Standard deviation	analysis	analysis	7.229	7.572	7.323
T(w/norm group)			1.990	0.960	2.019
df and sig. level			57 .05	72 N.S.	36 .025

Significance level is on one-tailed test as prediction is of superiority of attendance group over norm group.

N.S. = not significant.

GAINS IN ENGLISH

1.3 GOAL: Project children whose primary language is Spanish will show gains in comprehension of English as measured by the Peabody Picture Vocabulary Test.

ACHIEVEMENT CRITERIA: At least 55% of children tested as Spanish dominant on initial enrollment to the program, will have gained 10 points or more on the Peabody Picture Vocabulary Test after 200 days participation in the program out of the evaluation group for each evaluation (see target group). Note: This is an arbitrary goal based simply on improving the gain record previously achieved in the program since there

is no standard against which to measure "reasonable" gains in a second language.

TARGET GROUP: The evaluation group will be children who tested as Spanish dominant upon initial enrollment, who passed a 200-day testing point during a 12-month period ending April 31, 1976 for the end of program year evaluation (amended date).

TABLE 7. Gain in PPVT English Score of Spanish Dominant Children Tested 5/75-4/76 after 200 Days Attendance

Number in evaluation group	26
Number gaining 10 points or more	14
Percentage gaining 10 points or more	54% (goal was 55%)

MATH

1.4 GOAL: Project children will show a significant superiority to the project norm group in their knowledge of math concepts as measured by the Wide Range Achievement Test.

ACHIEVEMENT CRITERIA: The goal is considered met if children who have attended the program over 200 days since initial enrollment have a mean score on the math subsection of the Wide Range Achievement Test significantly superior at the .05 level to the mean score of the project norm group of comparable age, tested before attending 30 days.

ANALYSIS 1: Cumulative scores through 4/76.

TABLE 8. Scores on Wide Range Achievement Test, Math Subtest

Age Group	3.0-3.11	4.0-4.11	5.0-5.11	6.0-6.11	7.0-7.11
Norm group					
Numbe.	76	72	27	19	18
Mean raw score	3.224	5.000	8.667	14.632	18.278
Standard deviation	2.037	3.058	3.981	6.335	4.156
100 days (cum)					
Number	37	81	59	26	17
Mean raw score	6.622	9.630	12.932	18.077	21.529
Standard deviation	2.928	3.868	4.597	3.566	4.002
200+ days (cum)					
Number	8	58	65	32	12
Mean raw score	7.250	10.483	16.277	20.594	23.917
Standard deviation	4.097	3.570	3.943	4.347	3.175
t (w/norm group)	5.584	9.453	8.437	3.980	3.977
df and sig. level	82 .0005	128 .0005	90 .0005	49 .0005	28 .0005

The original evaluation design called for comparison between 200+ day attendance group and the norm group based on mean raw scores. Subsequently, a consultant to the evaluator suggested that it would be more valid to base this comparison on standard scores (which are available for children age 5 and over). Accordingly, the following additional analysis was done based on standard scores.

TABLE 9. Standard Scores on Wide Range Achievement Test, Math

Age Group	5.0-5.11	6.0-6.11	7.0-7.11
Norm group			
Number	27	19	18
Mean st. score	81.222	91.105	85.556
Standard deviation	16.695	19.641	9.960
200+ attendance			
Number	65	32	12
Mean st. score	109.585	112.406	99.417
Standard deviation	15.142	15.487	9.931
t (with norm)	7.969	4.290	3.737
df and sig. level	90 .0005	49 .0005	28 .0005

READING

1.5 GOAL: Project children will show a significant superiority to the project norm group in their ability to read English as measured by the Wide Range Achievement Test.

ACHIEVEMENT CRITERIA: The goal is considered met if children who have attended the program over 200 days since initial enrollment, have a mean score on the reading subsection of the Wide Range Achievement Test which is significantly superior, at the .05 level, to the project norm group of comparable age and language classification (norm group children are tested with less than 30 days attendance).

TABLE 10: Scores on Wide Range Achievement Test, Reading Subtest for Spanish Dominant Project Children

Age Group	4.0-4.11	5.0-5.11	6.0-6.11	7.0-7.11
Norm group				
Number	40	15	10	11
Mean raw score	7.200	9.600	14.300	19.364
Standard deviation	4.375	4.356	8.512	9.485
100 days				
Number	62	43	21	11
Mean raw score	9.871	10.953	17.048	33.000
Standard deviation	3.574	5.005	7.921	14.846
200+ days				
Number	48	49	29	10
Mean raw score	11.354	18.449	24.414	35.700
Standard deviation	4.702	7.813	9.631	13.124
t (with norm group)	4.252	4.178	2.949	3.292
df and sig. level	86 .005	62 .0005	37 .005	19 .005

Note: There are fewer tests reported in reading than in math because tests are cumulative and reading was introduced into the curriculum at a later date than math. Also math does not take into account language dominance and reading analysis does divide by langage dominance.

The original evaluation design called for comparison between 200+ days attendance group and the norm group based on mean scores as shown in the above table. A consultant to the evaluator suggested that it would be more valid to base this comparison on standard scores (available for children age 5 and over on this test). The following additional analysis was therefore done, based on standard scores.

TABLE 11. Standard Scores on Wide Range Achievement Test, Reading for Spanish Dominant Children

Age Group	5.0-5.11	6.0-6.11	7.0-7.11
Norm group			
Number	15	10	11
Mean standard score	80.933	81.000	75.455
Standard deviation	12.487	13.703	8.756
200+ attendance			
Number	49	29	10
Mean standard score	98.531	97.034	91.500
Standard deviation	13.798	15.207	13.962
t (with norm)	4.379	2.949	3.187
df and sig. level	62 .0005	37 .005	19 .005

A minimum number of 10 was set before statistical analyis would be done. The number of English dominant children for whom tests were available by this evaluation was insuificient to warrant analysis.

HANDWRITING

1.6 GOAL: Project children will show a significant superiority to the project norm group in their ability to do handwriting as measured by the Spelling subsection of the Wide Range Achievement Test. (Note: At the preschool level the spelling subsection measures the ability of the child to distinguish and copy marks, and form printed letters and is therefore more a test of handwriting skills than of spelling.)

ACHIEVEMENT CRITERIA: The goal is considered met if children who have attended the program over 200 days have a mean score on the Spelling subsection of the Wide Range Achievement Test which is significantly superior, at the .05 level, to the project norm group of comparable age (norm group children are tested with less than 30 days attendance).

TARGET GROUP: Because this is a measure of handwriting gains, the analysis group is limited to children age 3, 4, and 5. (These are the only ages receiving handwriting instruction, and pre-Apelling test fits this age group.)

TABLE 12. Scores on Spelling Section, Wide Range Achievement Test

Age Group	3.0-3.11	4.0-4.11	5.0-5.11
Norm group			
Number	76	72	27
Mean raw score	0.934	2.958	6.778
Standard deviation	1.417	2.821	3.468
100 days			
Number	37	81	59
Mean raw score	2.892	6.654	11.678
Standard deviation	2.052	4.270	5.094
t (with norm)	5.933	6.264	4.533
df and sig. level	111 .0005	151 .0005	84 .0005
200+ days			
Number	8	58	65
Mean raw score	5.125	8.759	15.215
Standard deviation	3.357	4.747	4.522
t (with norm)	2.445	9.022	8.716
df and sig. level	82 .01	128 .0005	90 .0005

CULTURAL HERITAGE

1.7 GOAL: Project children will show a significant superiority to a non-profit comparison group on the project developed achievement test in cultural concepts.

ACHIEVEMENT CRITERIA: The goal is considered met if project children who have attended at least 100 days (since February 1, 1975) show a superiority over the scores of children in a non-project comparison group that is statistically

significant, based on a comparison of the mean scores of small, unequal, samples.

Note: The non-project comparison group was tested in centers in Washington State which use the same criteria for enrollment as that used by this project. As a check on the comparability before program influence, the scores of children in the project who were pretested before 30 days attendance were compared to the non-project comparison group with the following results, verifying that the two represent the same basic population.

TABLE 13. Comparison Group and Project Pretest Scores on BMHS Test of Cultural Concepts

	Age 4.11 and Under	Age 5.0 and Over
Control N	15	14
Raw mean score	18.467	26.857
Standard deviation	5.998	6.666
Project pretest N	39	16
Raw mean score	17.179	26.438
Standard deviation	6.312	7.882
"t"	-0.678	-0.156
df and level of signif.	52 N.S.	28 N.S.

N.S. = not significant at .05 level.

The following table compares scores for project children after 100 days attendance with the non-project comparison group.

TABLE 14. Comparison Group and Project Post-Test Scores on BMHS Test of Cultural Concepts

	Age 4.11 and Under	Age 5.0 and Over
Control N	15	14
Raw mean score	18.467	26.857
Standard deviation	5.998	6.666
Project 100+ attendance N	47	87
Raw mean score	26.085	34.333
Standard deviation	4.772	5.842
"t"	5.052	4.382
df	60	99
Level of significance	.0005	.0005

SPECIAL STUDY: CONTINUITY GROUP WITH CONTROL GROUP

1.8 GOAL: Project children will show a significant superiority in math and reading to control group migrant children of comparable grade level.

ACHIEVEMENT CRITERIA: The goal is considered met if project children who have been enrolled in one or more northern locations in addition to enrollment in Texas, and who have attended the program more than 200 days since November, 1973, will show a superiority over a control group of migrant children of comparable grade level that is statistically significant at the .05 level in the subject areas of math and reading, as measured by the Wide Range Achievement Test.

Note: A comparison between the test scores made by the non-project control group with the scores before program influence of project children (e.g., pretest scores of children who started the program in kindergarten, first or second grade) is shown below. This was done to see if the control group and project group appeared to represent the same population group, e.g., without the influence of this program the scores of project children would have been expected to approximate those of children in the control group. As will be noted there were no significant differences between the pretest project children and the control group as shown in Table 15. This makes it reasonable to assume that project children would have performed much like the control group, except for the influence of this program.

TABLE 15. Control Group and Project Norm Group Pretest Scores on Wide Range Achievement Test, in Math and Reading

	Age 5.0-5.11	Age 6.0-6.11	Age 7.0-7.11
MATH			
Control, N	16	14	15
Mean raw score	7.000	13.857	18.400
Standard deviation	3.183	3.371	2.874
Norm, N	22	14	13
Mean raw score	8.182	15.071	18.385
Standard deviation	3.775	5.942	4.788
"t"	.480	.405	-.010
df and level of signif.	36 N.S.	26 N.S.	26 N.S.
READING			
Control, N	16	14	15
Mean raw score	8.188	13.571	19.733
Standard deviation	3.430	4.735	6.892
Norm, N	11	8	8
Mean raw score	8.903	11.750	19.375
Standard deviation	3.910	1.982	10.914
"t"	.502	-1.030	-0.097
df and level of signif.	25 N.S.	20 N.S.	21 N.S.

N.S. = not significant at .05 level.

After 200 days project attendance, a highly significant superiority is demonstrated by project children as the post-test results shown in Table 16 indicate.

TABLE 16: Control Group and Project Continuity Group Post-Test Scores on Wide Range Achievement Test, in Math and Reading

	Kindergarten	First Grade	Second Grade
MATH SCORES			
Control N	16	14	15
Mean raw score	7.000	13.847	18.400
Standard deviation	3.183	3.371	2.874
Project N	6	10	7
Mean raw score	17.668	21.000	22.714
Standard deviation	4.844	4.546	3.546
"t"	6.061	6.447	3.068
df	20	22	20
Level of significance	.0005	.0005	.005
READING SCORES			
Control N	16	14	15
Mean raw score	8.188	13.571	19.733
Standard deviation	3.430	4.735	6.892
Project N	6	10	7
Mean raw score	20.668	25.200	33.286
Standard deviation	10.985	10.570	10.515
"t"	4.167	3.662	4.891
df	20	22	20
Level of significance	.005	.005	.005

APPENDIX B

Technical Report on the Bilingual Mini Head Start Test of Cultural Concepts

The BMHS Test of Cultural Concepts was developed in 1975-76 to meet the need of a test of knowledge related to culture that was appropriate to children age 3-8. It was the finding of the project that most cultural heritage materials are geared to the older school-age child who has the time perspective to learn about history, famous figures, and rather abstract concepts. Other tests combine knowledge questions with attitude questions requiring the selection of words or faces along a continuum of five or more steps from positive to negative. We felt the younger children in our project group would not be able to respond to this multiple choice answer and that the results would reflect their confusion leading to very poor test reliability.

Content Validity

The project therefore elected to design its own test. Six aspects of culture were selected by the Educational Director, in consultation with other staff, which he felt were aspects that would be meaningful to small children.

Food was one aspect chosen. Staff then identified food items which they felt were most typical of Mexico--arroz con pollo, frijoles, enchilada, taco, cabrito, etc., and food most typical of the United States--hamburger, hot dog, cherry pie, doughnuts, turkey, etc.

Clothing was another topic chosen. Staff nominated typical items of clothing from Mexico--poncho, sombrero, huaraches, etc. and from the U.S.--T-shirt, tennis shoes, blue jeans, etc.

The topic representing the highest level of abstraction chosen was that of national symbols--the flags of both countries, and the seal of the U.S. with the eagle with the arrows and the olive branch, and the Mexican eagle with the snake in its talons.

The other topics chosen were holidays and celebrations of each culture (particularly those important to young children), songs and musical games (sung by young children or those used at holidays or celebrations which they would hear); and dances (that could be danced by young children).

Most other texts examined by the project before choosing to write its own left out music and dance, which are commonly considered rather important aspects of a culture. We felt this was probably because music and dance were difficult to portray in a paper and pencil test. The project test made a tape to be played on a cassette (singing by teachers, or music from records used for dancing) with a small sample of each song or dance. Hearing this, the children were then asked to choose between four pictures, the one that "went with" the music.

All test items required a nonverbal response--choosing one from four pictures in response to the cue given by the tester. Spanish word cues were used for all items related to Mexican culture, English word cues for all items related to U.S. culture.

Field Testing

Field testing was done of the original test and some pictures changed if the children could not readily recognize the object. In other cases, a pair of pictures was tried out on children and the one most frequently chosen to represent something--e.g., the dance the "Hokey Pokey," was selected for use in the test.

Reliability Data

The final version of the test was given to 70 children in the Texas center during January 1976. The scores from this group of children were analyzed to determine the reliability of the instrument. The Kuder Richardson 20 formula for reliability based on the pattern of answers to each test item, yielded a reliability of .90. For a project made instrument, this level of reliability seemed extremely high.

Nearly every test item differentiates well by age--i.e., misses appear to represent a growth pattern rather than random choice of answer. The test appears to be best adapted to the preschool through kindergarten age group. Older children score so high on the test that there is insufficient range to measure gain for first grade and higher. The project is considering development of a second level of the test, adding items of a little higher level of difficulty for the older children and eliminating some items which children uniformly are able to answer by age five.

The project is now in the process of using the tests with different groups outside the project to get a pattern of responses related to different cultural backgrounds.

Administration Data--Time and Cost

The test contains 44 test items and requires from 5 to 10 minutes to administer. It must be given individually. The test book contains 17 plates of four items each (68 picture choices). The same plate of four pictures may be used for more than one test item, each plate containing one or more dummy choices as well as the pictures related to test questions. Testers must also have the cassette tape for the song and dance questions. The test materials cost approximately $6.00, plus the time of staff in assembling the test books, coloring in some items, and duplicating tapes.